



# THE JACG NEWSLETTER

## JACG

THE JERSEY ATARI COMPUTER GROUP

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### FROM THE EDITOR'S DESK

Well, I'm probably a little biased, but I happen to think that this issue of The JACG Newsletter is the best one since I took over from Dave. If you take a look inside, you'll see great articles like a review of Hi-Soft C for the ST, an 8-bit graphics 8 math art program, an intro to MIDI for novices, a review of a new game for the Atari LYNX, a complete recap of last month's meeting, the last in our series of working with MS-DOS and Atari 8-bits, a report on the initial get-together of a large regional Atari User Group, and the start of a series on Atari role-playing games.

But don't think we've used up all our goodies for this month. In the coming months, you'll see more ST software reviews, an article on Atari 8-bit disk formats, continuations of the series on MIDI and role-playing games, Paul Caldwell's checkbook balancing program, and an introduction to C for both 8-bit users and ST users. Those upcoming articles are of course in addition to our regular features like Noyes From Noyes, reports on all user group activities and previews of our PD library disks of the months.

Again, to repeat myself from last month, you folks have been **WONDERFUL!!** Don't stop now though! I like it when you make my job hard by deciding what to print each month!

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### CALENDAR OF EVENTS

NEXT MEETING:

APRIL 14th, 1990

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## Noise from the President

Dave Noyes - JACG

The Ides of March will soon be upon us...I guess that it's lucky that none of us are emperors, or named Caesar! Speaking of Rome, actually speaking of my roaming around Ataridom (get the pun, Rome/roam?) I don't currently know the size or vitality of the kingdom, in fact, I wonder if anyone does! Yeh, we saw the LYNX at the last JACG meeting...impressive, it blows away ALL competition...but as usual, too little too late. It should have been out, advertised, and in sufficient quantity at least two months before it actually appeared on the scene. The PORTFOLIO, priced right...but a subset of MS DOS, not compatible with ATARI, and where's the advertising and marketing? The STacey...ATARI has finally received FCC certification for most of the models...let's see how it "flies" in the face of currently available competitors models, one always hopes for the best!

In the JACG world, a meeting was held at which the executive boards of several regional (Mid-Atlantic) Atari User groups attended; with the avowed purpose of cooperation and joint activity were discussed. Dave Arlington should have more on the establishment of the regional confederation "NEARUS", I'll leave the "meat" of the subject to him.

June is not that far away, it's time to begin planning for one of our yearly "happenings", the ATARI SAFARI. For those of you not acquainted with it; it is not a hunting trip to Africa!. It is a

meeting where several demonstrations occur simultaneously in various parts of the auditorium. Volunteers are needed, as always, I urge those who desire to actively participate, to speak to the appropriate vice-president, or to me, in order that we have a coordinated SAFARI, and are able, in the May NEWSLETTER, to enumerate what will be available to see at the June meeting.

Thanks and "good-bye" to Lars Fuchs, co-sysop of the JACG BBS. Lars is on his way to a job in Denmark, and I'm sure that we all wish him the best of luck. Speaking of the BBS, it was agreed at the last JACG executive board meeting to investigate the possibility and corresponding expense, in increasing the file storage capacity. The BBS is at a point where there is often no file space for uploads, despite Hurculean efforts to keep the file area updated with only the current versions of only those files reasonably expected to be of interest and need to users of the BBS. The membership will be apprised of the board's recommendation.





*From The Editor's Desk*  
Continued from front cover...

Question though.... How come Antic is so pathetically small, costs \$3.95, and only has enough content to come out bi-monthly when a single user group like ours comes out with a monthly publication with almost as much content lately?

I should mention that I did get an article this month that I won't be printing. Basically, it was an editorial-type article that defended piracy and said that software producers should stop complaining about piracy. Now, I don't mind editorial articles that some might consider controversial. These articles can stir healthy debate sometimes. However, in this case, I wanted to make it clear to all that my position as editor and indeed, the charter of this user group is that we do not approve of, or condone piracy in any way, shape, or form. I know people don't like to hear it, and there are a lot of people that still deny it, but it is a fact that piracy is a major reason that 8-bit commercial software is in the sad shape it is today. So, my apologies to the member who submitted this article, but that's how it is regarding piracy and this newsletter.

'Till next month then!!

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### 8 - BIT FEATURE

#### *WORKING ON MS-DOS FILES WITH YOUR ATARI 8-BIT! Part 3 by Dave Dvorin, JACG*

Welcome to the third and last part of a three part series on working with MS-DOS files on your Atari 8-bit.

The purpose of this series is to show you how it is possible to work with files from your favorite MS-DOS spreadsheet, database and/or word processor (this includes 1-2-3, dBase and WordPerfect) on your Atari 8-bit and conversely, how you can use files from your Atari 8-bit spreadsheet, database and/or word processor (this includes Synfile+, Syncalc and AtariWriter Plus) on your MS-DOS

machine.

In Part One: Computer files... I explained what a computer file is, the various types, the two basic categories and the two types we are most concerned with in this series: ASCII and DIF files.

In Part Two: Hardware and Software Requirements for file transfer... we covered the hardware and software requirements in transferring files from one machine to another.

Today, I will take you through the necessary steps to go to and from:

- o 1-2-3 and Syncalc
- o dBase and Synfile+
- o WordPerfect and AtariWriter Plus

Now onto...

Part Three: How to Create, Transfer and Load Specific Data Files...

In the following sections, I assume you know how to use the MS-DOS applications WordPerfect, 1-2-3, and dBase IV. Remember your Atari has much less memory than your M-DOS machine, therefore, make sure that the size of the file you wish to transfer to the Atari will fit. For example, you cannot transfer over a 100 page document from WordPerfect if your AtariWriter Plus can only handle 15 pages.

How to create a DIF file in 1-2-3 Release 2.01

1. Execute the TRANSLATE utility.
2. Arrow down to 2.01 for the source.
3. Arrow down to DIF for the destination.
4. Arrow down to select the source file.

How to load a DIF file in 1-2-3 Release 2.01

1. Execute the TRANSLATE utility.
2. Arrow down to DIF for the source.
3. Arrow down to 2.01 for the destination.
4. Arrow down to select the source file.

How to create a DIF file in dBase



#### III+ and IV

1. From the dot prompt, load the database file you wish to transfer with the USE command: "USE dfile1" where dfile1 is the .DBF database filename.

2. Copy the datafile into a DIF file with the copy command: "COPY TO dfile2 TYPE DIF" where dfile2 is the name of the file you wish to create to transfer.

#### How to load a DIF file in dBase III+ and IV

1. You must already have the .DBF datafile defined to the same specifications as the incoming .DIF database file.

2. From the dot prompt, load the database file you wish the .DIF file to move into with the USE command: "USE dfile3" where dfile3 is the .DBF database filename.

3. To import the .DIF file, use the APPEND command: "APPEND FROM dfile4 TYPE DIF" where dfile4 is the name of the .DIF file.

#### How to create an ASCII file in WordPerfect 5.0

1. With a document shown on the screen, press TEXT IN/OUT (Ctrl-F5) to display the Text In/Out menu.

2. Press 3 for Generic Save.

3. Enter a filename to save.

#### How to load an ASCII file in WordPerfect 5.0

1. With a document shown on the screen, press TEXT IN/OUT (Ctrl-F5) to display the Text In/Out menu.

2. Press 1 for DOS Text.

3. Press 3 for Retrieve (Carriage return/line feed to Soft return).

4. Enter a filename to retrieve.

#### How to create a DIF file in Syncalc

1. From SYNCALC, press OPTION for the Main Menu.

2. Position the cursor to LOAD/SAVE and press RETURN.

3. Position the cursor to SAVE and press RETURN.

4. Position the cursor to DATA and press RETURN.

5. Position the cursor to ROW and press RETURN.

6. Specify the cell range to save by giving the upper left and lower right cell positions of the desired area.

7. Select the drive number.

8. Enter the destination file name for the .DIF file.

#### How to load a DIF file in Syncalc

1. From SYNCALC, press OPTION for the Main Menu.

2. Position the cursor to LOAD/SAVE and press RETURN.

3. Position the cursor to LOAD and press RETURN.

4. Position the cursor to DATA and press RETURN.

5. Position the cursor to ROW and press RETURN.

6. Specify the cell range to save by giving the upper left and lower right cell positions of the desired area.

7. Select the drive number.

8. Enter the destination file name for the .DIF file.

#### How to create a DIF file in Synfile+

1. From the FILES sub-menu, position the cursor to SYNFILE+-->DIF and press RETURN.

2. Enter the file nto convert.

3. Indicate the destination filename.

4. Select the destination drive number.

#### How to load a DIF file in Synfile+

1. From the FILES sub-menu, position the cursor to DIF->SYNFILE+ and press RETURN.

2. Enter the name of the DIF file.

3. Enter the name of the destination file and pres RETURN.

4. Select the destination drive number.

#### How to create an ASCII file in AtariWriter Plus

1. Load or type the document.

2. Hit ESC to get to the Main Menu.

3. Hold down the CONTROL key while you hit the S key.

4. Enter the filename you wish to create in ASCII form.

#### How to load an ASCII file in AtariWriter Plus

1. From the Main Menu, enter L for load.

2. Enter the filename of the ASCII file and press RETURN.

How to transfer any file from the MS-DOS machine to the Atari using the connecting cable scheme, Crosstalk on the MS-DOS end and BobTerm on the Atari



end.

1. Turn on each computer and modem.
2. Load the telecommuncaton programs in each computer.
3. Enter R into BobTerm to receive a file.
4. Select XMODEM in BobTerm as the protocol.
5. Enter into BobTerm the filename to receive.
6. Enter XX into Crosstalk to transmit a file.
7. Enter the filename into Crosstalk to transmit.
8. Hit the SELECT key on the Atari to begin the transfer.

How to transfer any file from the Atari to the MS-DOS machine using the connecting cable scheme, Crosstalk on the MS-DOS end and BobTerm on the Atari end

1. Turn on each computer and modem.
2. Load the telecommuncaton programs in each computer.
3. Enter S into BobTerm to send a file.
4. Select XMODEM in BobTerm as the protocol.
5. Enter into BobTerm the filename to send.
6. Enter RX into Crosstalk to receive a file.
7. Enter the filename into Crosstalk to receive.
8. Hit the SELECT key on the Atari to begin the transfer.

There you have it. All the pieces required to move files from an 8-bit Atari to an IBM compatible. I have transferred files from Q&A on my XT over to my Atari often and have found the capability invaluable. I hope you find what I have covered in this series helpful. If you have any questions, please feel free to send them care of this newsletter:

Dave Dvorin  
c/o The JACG Newsletter  
Eagle Rock Vill. Bldg. 8 Apt. 3B  
Budd Lake, NJ 07828

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#### GENERAL FEATURE

##### WHAT IS MIDI?

(Part 1 of 3)

by John King, JACG

You've probably heard the term "MIDI" occasionally. And you've probably wondered what it meant. And you've probably turned to this article expecting to find out.

Well, I see we've run out of space this month. Come back next month for more vital MIDI information. ...What's that, Dave? We do have room? And, even if we didn't, you'd make room? ...Oh.

As I was saying... If you ask anyone who already knows, he will tell you that MIDI stands for "Musical Instrument Digital Interface". Does that help you? No, eh? Then just think of it this way: You see, there are these three cables walking down the street. The first one is a Parallel cable (the one that connects your computer to your printer), the next one is a Serial cable (the one that connects your computer to your telephone modem), and the third one is a MIDI cable (the one that connects your computer to your synthesizer). (By the way, a simple definition of a synthesizer might be "a unit which creates a variety of sounds and usually resembles an electric organ in appearance".) MIDI is just a standard of communicating data between musical instruments which evolved out of necessity. Quite simple, isn't it?

I am going to tell you some of the more important things you, the computer hobbyist, would want to know about MIDI, presented from a musician's point of view. (I am a guitarist, by the way.) As for you musicians who already use MIDI, so what if I don't cover all the technical details? This is a simple, general introduction to our fellow computer hobbyists, not an advanced course for musicians.

#### WHAT'S A SEQUENCER?

I can still remember back in the late 1970's, when I was in high school, reading about the Moog synthesizers and their competition. I seem to remember that you could purchase a large box (maybe about as big as a wide-carriage dot-matrix printer) which you could use to play your synthesizer. This was called a "sequencer". You could think of it as a type of player piano. All



you would have to do is spend some time adjusting the controls, and it would play a short sequence of sounds. As a matter of fact, you could set the controls to have it play faster (or slower) than you had originally intended. I suppose you would probably have had to take copious notes for each song, maybe even carry around a big notebook in order to remember all those different settings. But it was a great achievement at the time. Why, you could have that sequencer play music at speeds that were "humanly impossible"! You could even have it play a sequence of notes over and over again, while you played another instrument. This was all before the MIDI standard was implemented. We'll come back to sequencers in the next issue.

#### WHY SO MANY KEYBOARDS?

Meanwhile, let us look at pipe organs. You know, the old-fashioned kind with the real pipes. Ever notice the fact that these organs have at least two, or even three keyboards? Did you ever wonder why this is? Could it be that spare parts are hard to come by? The real reason is that the organist can play different sounds on different keyboards. If we look at this further, we will see something very interesting. Let's say our organist assigns a Flute sound to the top keyboard. And let's say he assigns a Brass sound to the bottom keyboard. Of course the organist can play the Brass sound with one hand while he plays the Flute sound with the other hand. But, guess what? He can flip a switch and have the bottom keyboard not only play the Brass, but also play the top keyboard, with whatever sound or sounds are on it! That's right, he can play just one keyboard, and have the other keyboard simultaneously play the same notes. (Of course, you won't see any keys moving on it, so you have to listen in order to tell.) What a great idea!

Evidently the synthesizer people thought so, too. They decided that it would be a nice idea to be able to connect several synthesizers together. This way, just by playing one synthesizer, they could "play" two or three...or five or six synthesizers.

I'll bet you thought that those keyboardists, with their stacks and stacks of keyboards, were just showing off all their equipment. Actually, they were "playing" it, but you couldn't tell. The different keyboards are connected with...you guessed it: MIDI cables.

We will stop at this point, and wait until next time to tell you more about MIDI. One note, though: you ST owners have not one, but two MIDI ports built into the back of your computers. (Macintosh [ED. NOTE: And 8-Bit owners!!] owners have to pay extra for a messy interface box to do this! ...as has been noted in Atari's ads in music magazines.) <grin>

#### SUMMARY, Part 1

So far, we have learned the following:

- MIDI is just another standard method of transferring data, as Parallel (Centronics) and Serial (RS-232) are.
  - A MIDI cable can connect your computer to your synthesizer.
  - MIDI cables can connect two or more synthesizers together. The synthesizer you are playing can "play" the rest of your synthesizers.
  - A Sequencer was originally a big box which could be adjusted to play a series of notes on your synthesizer.
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#### GENERAL FEATURE

##### *THE GATES OF ZENDOCON* *Atari Lynx Game Review* *By Mark Santora, JACG*

The Gates of Zendocon, designed by Epyx, and released through Atari, is one of the first games to be released for the Lynx game system. It is a quick moving horizontal shoot 'em up in the spirit of Defender.

The plot is simple. You have been captured by your old nemesis, Zendocon. Since he doesn't like you, he decides to have some fun at your expense. So he sends you through 51 different universes to see if you can survive. What a nice guy! You are given a space



ship armed with a Neutrino Laser, a Photon Bomb, and a shield.

You start out with 5 ships. Each ship can be damaged three times before finally exploding. However, as you become damaged, you lose some of your weapons. The first hit takes away your shield. Your shield is activated by pressing Button A and holding it down. The second hit takes away your Neutrino Laser. This laser is your lifeblood in this game. You really need this. It is activated by pressing Button B and holding it down. After being hit twice, you are left with your Photon Bomb. It is launched from your ship and descends down an arc until it hits something, or reaches the bottom of the screen. You can launch a Photon Bomb by pressing and releasing Button B quickly. You are given an unlimited source of ammunition.

At the end of each level is a gate. When you enter the gate, you are given the chance to land your ship for repairs. You leave your ship and go to one waiting on the second launch pad. You take off in it as your ship gets repaired.

You can also pick up extra weapons as you fly on. They will float next to you and shoot with you. These are good, but you really don't need them on the easy level. After playing for a while, you find yourself quite capable of handling the bad guys. But they are nice extras to have if you can get them.

The graphics are top notch. They are exactly what I expected from Epyx. The sound is equally impressive. It has a great opening scene with some digitized laughing. The musical score accompanying the game is also very good. However, for those who find the music tedious, there is an option to turn it off.

Overall, it is a very good game. But once you sit down to play, you must be prepared to sit for awhile. It does take some time to clear all levels. After you get the hang of the easy level, there is always the hard one. That is the one I am working on finishing right now. If you own a Lynx,

this is a game you don't want to be without.

## 8 - BIT FEATURE

### *TEXTPRO Review*

*The best gets better...*

*by Neil Van Oost Jr., JACG*

This month, Sam Cory, our hard working librarian, has an outstanding word processor for our disk of the month. Yes, it is 'Textpro'. "What", you say, "We just got a new version (4.0) from the library the other month." Well, yes, we do have another version, which was just recently released. It is version 4.54, and is without a doubt the best ever. Just read on and rush right out pick up your copy before you leave the meeting. Ask for number 204d, the disk of the month.

I picked up my copy on a weekend trip home from Oklahoma. The first thing I did was to print out the documentation and read it thoroughly.....YA WANNA BET. The first thing I did was to boot it up and start playing around to see what was different and to see if it was really as good as was touted.

Well, shortly after my hour of playing with the thing, I decided to print out the docs. After all, I was home and had two 80 column printers and if I waited until I got back out to Oklahoma I would have to print the whole thing out on my 1020. I really didn't want to spend the next week or so waiting for the 1020 to finish printing, so I did it at home. And was I glad I did, as printing out all the documentation went a little over 100 pages.

A quick look over the documentation revealed that it was well planned out and neatly formatted. As of this writing I am still reading it and probably will be for some time. It is a complex and yet a very easy program to use. If you have used an older version of 'Textpro' or 'Speed Script', which was published by Compute!, before they abandoned the 8-bit Atari, you can jump right in and use TP version 4.5. I must confess here that I never read the



documentation on previous versions of TP past the ---HELP key or ?+OPTION gets you HELP! These keys are functional on version 4.5, but you should at least read the read me files before you jump in, as they give you some configuring help.

Textpro 4.5 is ideally suited for Sparta DOS or MyDOS 4.5 and above, because of all the extra goodies that are supported with those DOS's. However the author did something new with this version, instead of making specific different versions for the different DOS's, he made one version that could be configured with several popular DOS's or be configured to a default setup for a DOS that it could not reconize. The DOS's fully supported are; MyDOS version 4.5 and above, Sparta DOS disk based versions 2.3-3.2, Sparta DOS X cart, and Atari DOS 2.0/2.5.

Some of the features that are new in this version are; Paste Buffer size can be allocated, Global search and replace (I really love this option), Global search and replace can be paused, Last file loaded can be called on the command line for save, Extra marco key combinations have been added with the ability to use OPTION+SELECT for Inverse Macros, Macros can be used on the command line to modify commands, You can enter a directory listing into the TP editor as easily as loading a file (gives all info from a Sparta directory), List any size directory in successive screen pages (you'll have to read the doc to understand this one), and View a highlighted file.

Other new features are the ability to to change things like; Changing wildcard rename and TextPRO+ SoftKEYS (you can define a complete set of programmable softkeys). There are undoubtedly some new options that I have left out in this review, but the author, Ronnie Riche, has not left out any, in either his documentation or his program. This is without a doubt one of the best word processors ever to come out for 8-bit Ataris. I will even go so far as to say that it rivals some of the ones on the 'Big Boys'.

The only thing negative that I can

say about the new version is the author's method of distribution. TextPRO+ is 'SHAREWARE'. ShareWare means to me that if you like the program and use it you should send something to the Author to show him that you appreciate his efforts and would like to encourage him to continue producing software. Well the author has suggested what you should remit if you use the program, but he has set up a complex system where if you pay a higher fee you can become a registered user and when you distribute the program you can collect .... I'm afraid I really still don't understand this and will probably send him just what he wants for the 'Distribution Disk' as I can not see sending someone monies just because they uploaded it to a BBS. You will have to read the documentation to fully understand just what I am talking about as I still don't understand it myself.

The only parting words I can say about this program is that it is very powerful if you decide to fully use all of its many options. As I get further into the documentation and am learning more about it, I am just beginning to realize its full potential. On a scale of one to ten I would rate this program a fifteen, it is definitely a must have for the Atari 8-bit community. Thank you, Ronnie Riche for a great program. If you want to contact the author, his address is : Ronnie Riche, 1700 Aycock St., Arabi, LA 70032.

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#### JACG MEMBERS CLASSIFIED ADS

#### Clipart For Sale!

Stop searching in a half dozen places for clip-art for your desktop publishing needs. Electronic Spinster Graphics has a library of over 110 disks, mostly double sided, from animals to transportation. Disk prices start at \$5.00 (\$3.50 for single-sided), and go down in quantity. For the most recent catalog, send a SASE to:

Linda Peckham  
704 Arkansas  
Lawrence, KS 66044



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**Wanted to Purchase:**

1 8-bit Used unenhanced computer.  
Must be in good condition. Contact:  
Henry Bear  
Work: 800-937-0786  
Home: 201-447-3252

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**GENERAL FEATURE**

***FEBRUARY MEETING NOTES***  
***by Joseph E. Hicswa, JACG***

It was impressive to see numerous, dedicated members who braved chilly, rainy weather to attend our February meeting. One person clad in rain gear came on motorcycle. JACG must be doing something right.

Mingling among the flea market crowd one recognizes familiar faces consistently shopping for those bargains every month. The 8-bit and 16-bit librarians do a brisk business selling discounted Disks of the Month and other affordably priced disks from catalog lists.

16-bit Disks of the Month are \$3.00 for members. February ST DOTM #161 was MANUAL MAKER 2.25, a shareware program for Desktop Publishing. It includes ASSASIN to help with Assign files.

The 8-bit disks offer just as much. For only \$2.00 each, a member may buy an 8-bit DOTM, (JACG #203D - see below), an ANALOG (magazine) disk as well as the latest computer-club disk from B.A.S.I.C. or A.C.E. of N.J.

Our officers scatter about the crowd meeting members, welcoming newcomers, overseeing activities and preparing the meeting program. Smiling Mike Hochman, our Secretary and Membership Director happily signs up new members and collects renewal dues while a volunteer crew busily collate the monthly newsletter. Some children are awed by the paraphernalia and excitement while others flit about

gleefully making friends and playing like they would at a family gathering. Gradually the buzzing tones down as members retire to the auditorium and read their newsletter while a giant screen onstage displays fascinating colored ATARI artworks.

Soon Mr. Robert Mulhearn begins his question and answer session. Novice ATARI owners seek answers to problems many of us encountered when we first started. Then there are technical questions asked and answered by the pros. This is followed by our officer reports.

President David B. Noyes preambled the program and gave news bits affecting our ATARI family. President Noyes needs an ADVERTISING CHAIRMAN to solicit ads for our newsletter. His address and phone number are on the back page of this newsletter. Contact him if you are interested.

16-Bit V.P. John Dean shared ST info, described 16-bit demos and ST DOTM. V.P. Dean is accepting ST demos and speakers for future meetings. His address and phone number are on the newsletter. If you want to do a demo or talk, but need help, Mr. Dean will assist in every way possible. Call or write.

8-Bit V.P. Neil Van Oost Jr. does likewise for 8-bitters. Mr. Van Oost, a full time postal employee, was missed at the January meeting. Neil returned from Oklahoma where, for five weeks, he was enrolled in a computer school for the U.S. Post Office.

Treasurer Jack Rutt proudly told about our healthy financial standing. Membership Director Hochman gave a membership status report. ("Hey!" says Mike, "We always accept a new member or renewal.") Mr. Hochman is responsible for the "other" Club Newsletter library. He is presently restoring it and needs all checked-out issues which have not been returned. Mail them to Mike or bring them to the next meeting. At the February meeting, we missed Editor Dave Arlington, who usually amuses us with anecdotes about our newsletter and other interesting items.



There was also a Librarian's report about the Disk of the Month and new additions to our club's disk library. Condolences were expressed for President Emeritus Gary Gorski who was absent. His mother passed away.

#### DEMOS

FONTZ! by Neocept, Inc. This ST font editor and converter was demonstrated by that ardent member Mr. John King. John descriptively showed how jagged edges of font characters are made smooth by FONTZ! This enables fine printing. Although time consuming to dress up one's character set, the end results are works of art. (Makes you proud.) For a more detailed report of FONTZ!, read Mr. King's review in last month's newsletter. Ask him about it at a meeting.

There were three 8-bit demos. 8-bit V.P. Neil Van Oost Jr. showed us DROPZONE, a colorful, challenging, Defender type game by MicroDaft. (Neil bought this in Oklahoma.) It requires quick reflexes. Several pre-teenagers also played it. The children were so good that adults had to offer alibis for their low scores. For a Van Oost review of DROPZONE, see Feb. TJN. He's also available at our meetings.

President Dave Noyes demoed MEGATERM, the 8-bit DOTM. It's an easy, menu driven terminal program for modem users. David also gave us a brief peek at TETRIX, a graphic puzzle included on the disk. The disk also contains PROC80 and SURGERY. (This writer has not yet tried the last two. To find out about them, you'll have to get a copy of Feb. DOTM, JACG #203D.)

LYNX, a portable color entertainment unit -- the new ATARI rage -- was displayed and played by Mr. Mark Santora. I was fascinated by its wafer-thin cartridges, not much larger than a saltine cracker. Mark was on the stage, yet we in the audience could hear the sounds, see vivid screen colors and movements of his CALIFORNIA GAMES. Mr. Santora's review of the LYNX is also in last month's TJN. Mark and his LYNX were a hit at the meeting. LYNX is a nice way to while away the time as you limo to Atlantic City or

fly to Vegas.

#### DOORPRIZES

There were plenty of doorprizes: Operator, language, and programming manuals and books as well as 8-bit and 16-bit software. (If you did not sell it or trade it, don't take it home -- donate it!!) Numerous copies of ATARI EXPLORER, (Jan/Feb 1990 issue) were also doorprizes. Lucky were those members who had two or more tickets because they write articles, do demonstrations, or give a 5-10 minute talk. To get on the list, contact an officer.

If you weren't at February's meeting, you missed a lot. Maybe I'll see you at our April meeting. Bring a friend with you or make one there. ATARI and JACG do it right!

#### GENERAL FEATURE

##### *NEW REGIONAL ATARI GROUP FORMING Report by Dave Arlington, JACG*

Last month, February 17th, a embryonic meeting took place that could have a positive effect on every member of the JACG. The meeting was arranged due to the very hard work of Mr. Ron Motley of the Lehigh Valley Atari Users Group. It was the initial meeting of the NORTH EAST ATARI REGIONAL USER SUPPORT or NEAR-US for short. The meeting consisted of officers and representatives from 8 different Atari users groups across the North East U.S.

The meeting was held at the JACG's regular meeting place at Bell Labs. The groups that sent representatives were:

JACG - Northern New Jersey  
NEAT - North East Atari Team from Philadelphia  
LIAUG - Long Island Atari Users Group  
ABBUC - Atari Bit Byters Users Club from Germany!  
OL' HACKERS - Oceanside, N.Y.  
LVAUG - Lehigh Valley Atari Users Group  
A-BUG - Reading, Pa.  
S.P.A.C.E. - South Pa. Atari Computer Enthusiasts from Harrisburg, Pa.

Most of the discussion at this



first meeting was simply to decide if this group could exist, and if so, what it hoped to accomplish. The main goals of this fledgling organization were decided upon fairly quickly and most of the remainder of the discussion was on how the main goals could best be implemented.

It was thought that the primary goal would be to establish a contact network to facilitate communication and information sharing amongst all the groups. It was also felt that a large organization that spoke for several users groups would carry more weight with software vendors and Atari.

The information sharing and communication between the groups would result in more ideas for exciting demonstrations at the meetings, more variety of good software in our PD library and more good articles for our newsletters. The first initial steps taken at the meeting was to name a contact person for each represented group. These contact people would initially provide reports on their club's activities to the current de facto coordinator, Ron Motley.

It was initially decided that the representatives would meet quarterly to assess their progress and decide on the next steps to be taken. In the months to come, I'll be able to run articles on our neighboring groups to tell you what they are doing and how they are doing.

If this group does indeed get off the ground, I think it will have an immensely positive effect for all JACG members. I think Ron Motley of LVAUG deserves a great big hand of thanks for his efforts at getting this thing started. Hopefully soon, NEAR-US, will become a familiar name to Atari users in the Northeast U.S.

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## 8 - BIT FEATURE

### **BEZIER CURVES ON THE ATARI** *by Thomas E. Graf, JACG*

In the early 1960's, Mr. P. Bezier, an engineer working for Renault, began development of a

computer aided design program for modelling curves and surfaces. The result of his work was called "UNISURF" and has been used by the automobile manufacturer since 1972. Although programs such as UNISURF are generally run on much larger computers, the concepts developed by Mr. Bezier for UNISURF can also be implemented on the ATARI computer, whether 8- or 16-bit.

When programmed on your computer, Bezier curves, as they are called, can be generated by using just a few control points. As only a few numbers are associated with the control points, a Bezier curve requires only minimal storage capacity. Many very different curves can be generated using the same method and selecting different control points. It is also easy to modify a curve by changing only one or two control points. When the control points are located properly, several curves can be joined to produce a more complicated one.

A third order Bezier curve can be expressed mathematically as shown here:

$$[1] \quad R(u) = (1-3u+3u^2-u^3)V_0 + (3u-6u^2+3u^3)V_1 + (3u^2-3u^3)V_2 + (u^3)V_3$$

It is called a "third order" curve because the highest power of the parameter "u" is 3. The third order curve can bend in as many as two directions.

$V_0$ ,  $V_1$ ,  $V_2$ , and  $V_3$  represent points on a plane, or in space, or in whatever multi-dimensional universe you wish to create. In drawing a curve on a flat piece of paper or a screen (in other words, a plane),  $V_0$ ,  $V_1$ ,  $V_2$ , or  $V_3$  each have two values. One is for the x coordinate and one is for the y coordinate. For a three-dimensional curve, each one would have x, y, and z components. In this article, the example is kept to two dimensions: x and y.

Specifically for the third order example shown here,  $V_0$  and  $V_3$  are end points of the curve, while  $V_1$  and  $V_2$  determine the shape of the curve.

To generate the curve, the parameter "u" is incremented from 0 to



1. It is called a parameter as it controls the results of the equation and is not plotted. As  $u$  increases, the curve will march from endpoint  $V_0$  to endpoint  $V_3$ .

I haven't really discussed  $R(u)$ . It is written  $R(u)$  as  $R$  is a function of the parameter  $u$ .  $R(u)$ , or  $R$  from now on, is a point on the Bezier curve. As with the end and control points,  $R$  will have several values, depending on the number of dimensions you are using. For a curve on a plane,  $R$  will have two values, one for the  $x$  coordinate and one for the  $y$  coordinate.

The math lesson is over. Now the fun part begins. To use equation [1] and to plot a curve, the following procedure is followed:

- 1)  $V_0$ ,  $V_1$ ,  $V_2$ , and  $V_3$  are selected. Each point has an  $x$  and a  $y$  value.
- 2) Start  $u$  at 0.
- 3) If  $u$  is 0, Plot  $V_0$ , which is the first point. Alternatively, you could evaluate the expression at  $u=0$ , waste some computer time, and get the same result.
- 4) If  $u$  is not 0, then evaluate the expression in figure 6 thus:

a) For the  $x$  value of  $R$ , plug in the  $x$  values of  $V_0$ ,  $V_1$ ,  $V_2$ , and  $V_3$  and evaluate  $R$  for the current value of  $u$ . The resulting value is the  $x$  value of  $R$ .

b) For the  $y$  value of  $R$ , plug in the  $y$  values of  $V_0$ ,  $V_1$ ,  $V_2$ , and  $V_3$  and evaluate  $R$  for the current value of  $u$ . The resulting value is the  $y$  value of  $R$ .

Now you have an  $x$  and a  $y$  value for  $R$ . Draw a line from the previous value of  $R$  to the new value of  $R$  you have computed. Ideally, you do not have to draw a line from point to point, as  $u$  is theoretically varied from 0 to 1 in an infinitesimal increments. In practicality, however,  $u$  is incremented by a convenient step to keep computational time down. If you keep the step small enough, then the curve will remain smooth.

5) If  $u$  is less than 1, increment  $u$  and do step 4 all over again.

Congratulations, you have drawn the curve.

Listing 1 is a short BASIC program for the 8-bit machines which draws several Bezier curves in GRAPHICS 8. Four pre-defined curves are plotted, and the control points for each are shown. All curves will have the same end points, but the two control points will be varied so as to pull it into different shapes.

### OBSERVATIONS

There are several basic properties of Bezier curves which are important:

1) The curve will always lie within a box defined by lines drawn between the end- and control-points. This box is called the "convex hull". One potential use for this property is that it defines the area that the curve will inhabit.

2)  $V_1$  and  $V_2$  are control points which determine the shape of the curve. The curve rarely, if ever, will pass through  $V_1$  or  $V_2$ .

3) The curve at each end-point is tangent to a line drawn through the end-point and next or preceding point. For example, the curve is tangent at  $V_0$  to a line drawn through  $V_0$  and  $V_1$ . At the other end, the curve is tangent to a line drawn through  $V_2$  and  $V_3$ . This is useful for multiple Bezier curves which are joined at the endpoints. By placing the control points for successive curves on a line, one can insure that the joined curves have a smooth transition between one and the other. There are other conditions for making a continuous curve, but they are outside the scope of this article.

### SO WHAT?

Apart from being an exercise in applied math and graphics on the computer, Bezier curves can play a useful role in your program. They can form a basis for a mini-CAD program if



you are bold, or they can provide you with a way to produce flowing curves for, say, a background of hills or the ocean.

When I first programmed an interactive version of the listings above, I found it fun to move the control points about and watch the pretty curves being drawn.

# REFERENCES

[1] Ens, Steve, "Free Form Curves on Your Micro", BYTE, December 1986, pp. 225-230.

[2] Qiulin, D. and Davies, B., Surface Engineering Geometry for Computer Aided Design and Manufacturing, Halsted Press, 1987, pp. 112-140.

# LISTING 1

This listing is in ATARI BASIC. It will run in TURBO BASIC XL quite fast. In fact, the program was LISTED to disk using TURBO BASIC, which accounts for the indentations in the loops. This is my preferred BASIC dialect. If you program in BASIC and haven't tried this language, you're missing out on a lot of fun. Also included are the "TYPOII" (copyright ANTIC Magazine) checksum codes for your typing pleasure. It will save some frustrating time if you decide to type in the program. One last note, I put the listing in the article deliberately. I find that when I am typing in the program, I begin to see programming methods of the author. Not that I'm a fantastic programmer, but maybe someone out there can give me a hint or two about how to do it better.

```
VB 10 REM BEZIER CURVE DEMONSTRATION
DC 20 REM FOR JACG NEWSLETTER
HP 30 REM WRITTEN BY T. E. GRAF, JACG
SZ 40 REM JANUARY, 1990
NH 50 GOTO 230
AJ 60 REM *****
UD 70 REM PLOT THE CURVE
BF 80 REM
RS 90 PLOT V(0,0),V(0,1)
PK 100 FOR U=0 TO 1 STEP 0.05
WT 110 U2=U*U
WD 120 U3=U*U2
NK 130 B0=-U3+3*(U2-U)+1
```

```
FR 140 B1=3*(U3-2*U2+U)
LN 150 B2=3*(U2-U3)
UC 160 X=B0*V(0,0)+B1*V(1,0)+B2*V(2,0)
      )+U3*V(3,0)
ZF 170 Y=B0*V(0,1)+B1*V(1,1)+B2*V(2,1)
      )+U3*V(3,1)
HG 180 DRAWTO X,Y
KZ 190 NEXT U
YY 200 RETURN
LX          210          REM
*****
HX 220 REM INITIAL SETUP
VR 230 DIM V(3,1),K$(1):INC=3
XJ          240          GRAPHICS      8:SETCOLOR
1,0,15:SETCOLOR 2,0,0:COLOR 1
WJ 250 PRINT "PLOT CONVEX HULLS (Y/N)";
SS 260 GOSUB 410
MJ          270          REM
*****
KY 280 REM MAIN LOOP
NQ 290 FOR I=1 TO 4
KE 300 ON I GOSUB 630,640,650,660
BD 310 GOSUB 480
VI 320 GOSUB 90:REM PLOT ROUTINE
TO 330 IF FLAG THEN GOSUB 560
GB 340 NEXT I
KJ 350 PRINT "CURVES COMPLETE. TRY
AGAIN(Y/N)";
ST 360 GOSUB 410
VN 370 IF FLAG THEN RUN
OI 380 END
MO          390          REM
*****
YU 400 REM INPUT Y/N ROUTINE
DS 410 INPUT K$
VA 420 IF K$="N" OR K$="n" THEN FLAG=0
KV 430 IF K$="Y" OR K$="y" THEN FLAG=1
ZI 440 RETURN
MH          450          REM
*****
PI 460 REM READ IN POINTS FROM DATA
XR 470 REM AND PLOT BOXES AROUND POINTS
MY 480 FOR J=0 TO 3
TD 490 READ X:READ Y
XY 500 V(J,0)=X:V(J,1)=Y
DO 510 PLOT X-INC,Y-INC:DRAWTO
X+INC,Y-INC:DRAWTO X+INC,Y+INC:DRAWTO
X-INC,Y+INC:DRAWTO X-INC,Y-INC
GJ 520 NEXT J
ZH 530 RETURN
MG          540          REM
*****
AF 550 REM PLOT CONVEX HULL ROUTINE
TE 560 DRAWTO V(2,0),V(2,1)
QO 570 DRAWTO V(0,0),V(0,1)
RZ 580 DRAWTO V(1,0),V(1,1)
UT 590 DRAWTO V(3,0),V(3,1)
ZC 600 RETURN
MB          610          REM
*****
```



```

GJ 620 REM SELECTS A SET OF POINTS
AW 630 RESTORE 710:RETURN
DC 640 RESTORE 750:RETURN
FI 650 RESTORE 790:RETURN
CR 660 RESTORE 830:RETURN
MN          670          REM
*****
JG 680 REM DATA FOR V0, V1, V2, & V3
NU 690 REM X AND Y COMPONENTS PAIRED
BK 700 REM ON EACH LINE
EI 710 DATA 10,150
FI 720 DATA 70,70
IM 730 DATA 250,90
CY 740 DATA 310,10
EQ 750 DATA 10,150
DW 760 DATA 50,50
JL 770 DATA 270,110
DG 780 DATA 310,10
EY 790 DATA 10,150
BR 800 DATA 30,30
LA 810 DATA 290,130
CV 820 DATA 310,10
EN 830 DATA 10,150
AF 840 DATA 10,10
JM 850 DATA 310,150
DD 860 DATA 310,10

```

#### APPENDIX: BASIC MATHEMATICAL RELATIONSHIPS FOR BEZIER CURVES

Bezier curves are expressed as shown here:

$$[1] \quad R(u) = \sum_{i=0}^n B_{n,i}(u) V_i$$

where  $\sum$  is the Greek letter Sigma,  
/ the symbol for summation.

The subscripts letters n and i are integers. The value n is the order, or degree of the curve. For example, if n = 3, then it is a third order Bezier curve which can bend in as many as two directions. The value n can be any value you like; the higher the value, the more wiggles your curve can have. However, for such power there is a price. You will have to raise the parameter u up to the nth power, which will take time in your computations.

$$[2] \quad B_{n,i} = C(n,i) u^i (1-u)^{n-i}$$

This is the definition of the coefficient B in equation [1] above. The subscripts on B just tell the user who the B is.

$$[3] \quad C(n,i) = n! / (i!(n-i)!),$$

where ! is the factorial of the number. (i.e.  $3! = 3 \times 2 \times 1 = 6$ ;  $0! = 1$ ) C is used to calculate the coefficient B. The math majors will recognize this as the binomial coefficient.

$V_i$  is one of the control points which defines the shape of the curve. As mentioned in the article,  $V_i$  has x, y, and possibly z values. In actuality,  $V_i$  represents a vector whose base is at the origin and its head is a point in a plane or in space. The subscript i ties  $V_i$  to the particular  $B_{n,i}$  in equation [1].

Likewise,  $R(u)$  is also a vector which is the sum of the vectors  $V_i$  as modified by the terms involving u and C.

A lot of math? Well, maybe. An example should clear up any questions. For the 3rd order curve n = 3. The value i is varied from 0 to 3.

$$[4a] \quad B_{3,0} = C(3,0) u^0 (1-u)^{(3-0)} = 1(1-u)^3$$

$$[4b] \quad B_{3,1} = C(3,1) u^1 (1-u)^{(3-1)} = 3u(1-u)^2$$

$$[4c] \quad B_{3,2} = C(3,2) u^2 (1-u)^{(3-2)} = 3u^2(1-u)$$

$$[4d] \quad B_{3,3} = C(3,3) u^3 (1-u)^{(3-3)} = 1u^3$$

The coefficients 1, 3, 3, and 1 in equations 4a, 4b, 4c, and 4d, respectively, are the values of C and are calculated as follows:

$$C(3,0) = 3! / (0!(3-0)!) = 6 / (1 \times 6) = 1$$

$$C(3,1) = 3! / (1!(3-1)!) = 6 / (1 \times 2) = 3$$

$$C(3,2) = 3! / (2!(3-2)!) = 6 / (2 \times 1) = 3$$

$$C(3,3) = 3! / (3!(3-3)!) = 6 / (6 \times 1) = 1$$

Combining the terms in 4a, 4b, 4c, and 4d, we get:



$$[5] \quad R(u) = (1-u)^3 V_1 + 3u(1-u)^2 V_1 + 3u^2(1-u)V_2 + u^3 V_3$$

The terms involving  $u$  can be expanded to get the results shown in the article. For those familiar with matrix notation, this can be expressed as:

$$[6] \quad R(u) = [u^3 \ u^2 \ u \ 1][B][V_0 \ V_1 \ V_2 \ V_3]^T$$

The superscript "T" indicates the transpose of the matrix containing the V's.

$$[7] \quad [B] = \begin{bmatrix} -1 & 3 & -3 & 1 \\ 3 & -6 & 3 & 0 \\ -3 & 3 & 0 & 0 \\ 1 & 0 & 0 & 0 \end{bmatrix}$$

For greater or lesser degrees (values of  $n$ ),  $[B]$ , as well as the other matrices, will vary in size as the value  $n$ .

#### 8 - BIT FEATURE

##### **8-BIT DISK OF THE MONTH SYNCALC TEMPLATES FOR 1989 INCOME TAX U.S. FEDERAL and NEW JERSEY TAX FORMS**

This month's disk for the 8 bit includes my updated templates for use in computing your Federal and New Jersey Income taxes for 1989.

You must have a copy of SYNCALC (no longer commercially available) in order to use the templates. Unfortunately the templates will not work with VISICALC which is one of the only decent spreadsheets that is still available for the 8 bit.

The templates or worksheets are contained in files with the following names:

#### 1.) FEDTAX89.SC

This file includes the 1989 FEDERAL TAX forms 1040 (individual income tax return) and Schedule A (itemized deductions).

#### 2.) NJTAX89.SC

This file includes 1989 New Jersey Form 1040 (plus related worksheets) and Schedule A.

Each template has been designed to work with a minimum of 48k of memory. The templates were designed to match the sequence of the government forms. Line numbers are provided in the left hand margins to assist you in following the printed forms and instructions. I suggest you print out a copy of each worksheet to assist you in assembling your data for entry. After entering your data and SYNCALC has done all of your calculations, you can print out the end result for subsequent transfer to the official forms by hand.

For those of you who are interested in learning to program spread sheets, there are a few formula construction techniques used in my templates that I'd like to point out because they are not well documented in SYNCALC.

1) The logical function @IF is used extensively in conjunction with other mathematical functions.

2) The @INTeger function is used in the formula "@INT +.5" to round all calculations to the nearest (higher or lower) whole dollar.

3) The @LOOKUP function is used to calculate the Standard Deduction and Taxes due. For example the @LOOKUP function allows you to lookup your filing status (values 1-5) in column A and find the corresponding standard deduction for each filing status in column B.

Jim Morlock - JACG

#### 8 - BIT FEATURE

##### **UNIVERSE Review by Dave Arlington, JACG**

I know, I know, if you've heard of UNIVERSE, you know it is a game that was released 5-6 years ago for the Atari 8-bit. However, since new



releases of software are not forthcoming for the 8-bits, I thought I would re-review some classic pieces of Atari software for those who might never have tried them.

One of my favorite category of games for the Atari is role-playing games. Role-playing games are basically "Let's Pretend" games for adults. They allow you to experience another world or worlds different from our own. There are many fine games for the 8-bits that fit in this category, ALTERNATE REALITY, PHANTASIE, ULTIMA(S), WIZARD'S CROWN and more. Most of the computer role-playing games that exist for the Atari are based on a semi-midevil world with magic loosely based on J.R.R. Tolkien's Ring Trilogy. However, the one I chose to lead off the series with and of the best ever is UNIVERSE, a science fiction role-playing game from Omnitrend Software.

The basic story-line for this game goes something like this: In the near future, an alien artifact is discovered in our solar system that allows space ships to cover an incredible distance in a short time. This discovery allowed a far away star system called The Local Group to become colonized. The trick is that travel with the artifact is strictly one-way, from Earth to The Local Group. Earth has been using the artifact, called a Hyperspace Booster, to regularly send supplies to the colonies.

At the time the game opens, Earth has mysteriously stopped sending supplies and communications have been cut off. No one in the colonies knows what has happened back on Earth. However, recent rumors abound that another Hyperspace Booster exists in The Local Group. If these rumors are true, contact with Earth could be re-established. Guess who's hoping to gain the immense fame and fortune for finding this second Hyperspace Booster? Yep, it's you.

Not that it's simply a matter of hopping in a space ship and cruising around looking for it. Seems that you are a pretty poor dude with just enough good credit to scrape up a "starter" package consisting of a ship and a few

supplies. This loan means that while you're looking for the new Hyperspace Booster, you have to be worried about making enough money to survive and eventually pay back your loan.

To me there are two things that make for a successful computer role playing game. The first is that the alternate world (or in this case, solar system) is a logically consistent place. The detailed background story above is just one thing that makes this true for UNIVERSE. There are other things that highlight this aspect. Each world or colony in the Local Group has it's own type of government, customs, and level of technical sophistication. What is a legal product or activity in one system may be illegal or worthless or too sophisticated in another. Unlike many other games that involve space travel, UNIVERSE takes place in a truly three dimensional space. Lastly, the instruction manual is one of the most detailed I've ever seen, containing not only information on how to play the game, but detailed history and information on the Local Group.

The other factor in a successful role playing game is the player's freedom of choice. The games I like the least are the ones that have linear solutions. You know, the type where to defeat Big Baddie you need the Cosmic Cube. To get the Cosmic Cube, you have to defeat a certain monster after gaining a certain weapon which can be found in a certain location, etc. etc. UNIVERSE is thankfully not like this. There are many ways to eventually achieve your goal; you could become a merchant, a space-roving pirate, or perhaps a mining mogul. It's up to you how you want to play the game. In fact, finding the Hyperspace Booster becomes a secondary task, at least at first while you are finding your calling in life.

The amount of choices to the player on how he or she wants to play begins right at the start after getting the initial loan. You are transported to the DryDock to pick out one of 9 ships and choose equipment from a large list of goodies. Depending on how you choose your initial ship will go some ways to determine how you will play the



game. Then you are thrown out into the Local Group to fare for yourself. Where you go from there is entirely up to you.

For a game from 5-6 years ago, UNIVERSE is excellent graphically and plays easily using the function keys and a joystick. It takes up four full disk sides of information and is not copy protected so you can make back-ups.

One word of caution if you decide to purchase it. Look for the latest version in the smaller box with the list price of \$49.95. (I believe B&C Computervisions offers it in their latest ad for \$44.95.) The reason for this is that the manual has been updated several times and the latest version of the manual contains some very helpful information that was not in the earlier versions that listed for \$99.95.

Things that the newer manual contains: A special section on getting started. Because UNIVERSE offers so many choices, it's easy to make some bad ones at the start and crap out right away before really getting started. The new section on getting started alleviates most of these problems for first-time players. The newer manual also contains more maps, charts, and information, including a complete product list that used to be for sale as a separate item.

This is a game you can play for weeks and months. But it never becomes tiring. There is always one more system you've never been to, one more option you've never tried before that will be a sure-fire success. As for me, have I found the Hyperspace Booster yet? Sorry to say, no, not yet. I don't really care though, as there's a lot I haven't done yet. So if you like grand, epic space games, give UNIVERSE a try.

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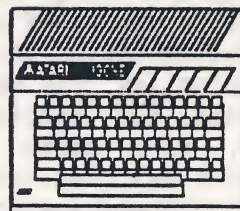
## MEMBERSHIP



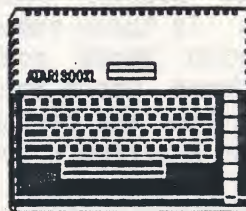
CHECK YOUR  
STICKER &

RENEW  
TODAY

## 8-BIT

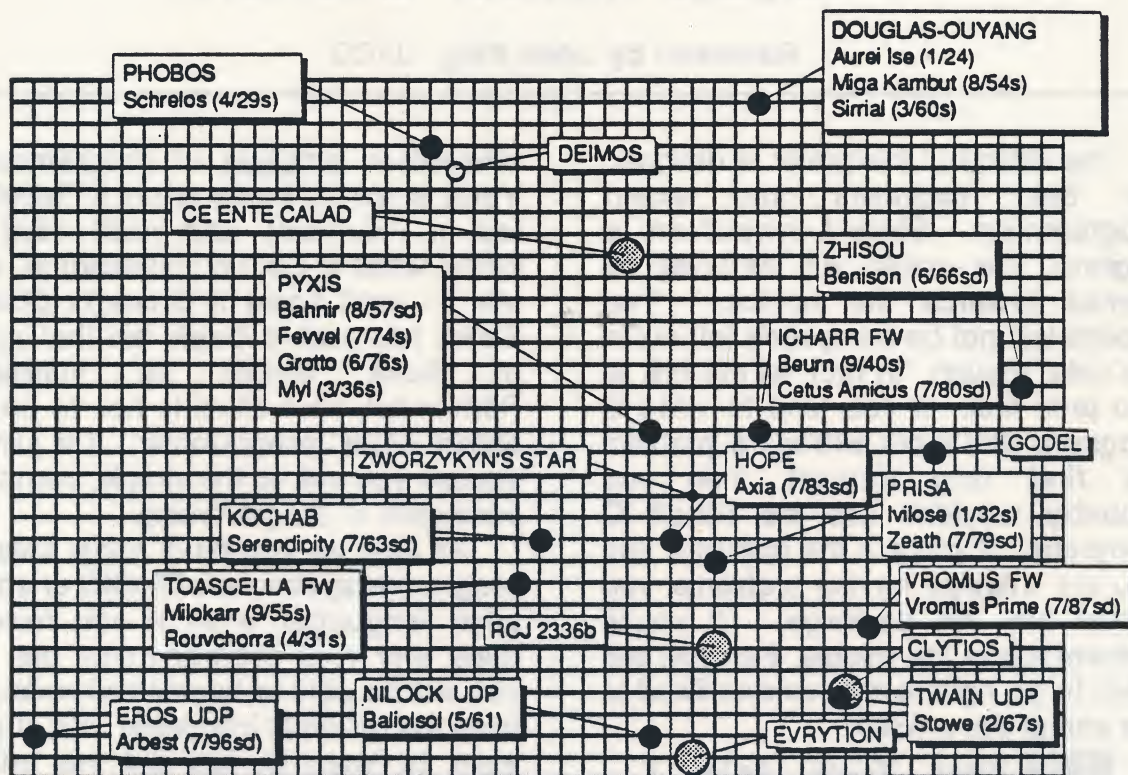


## POWER

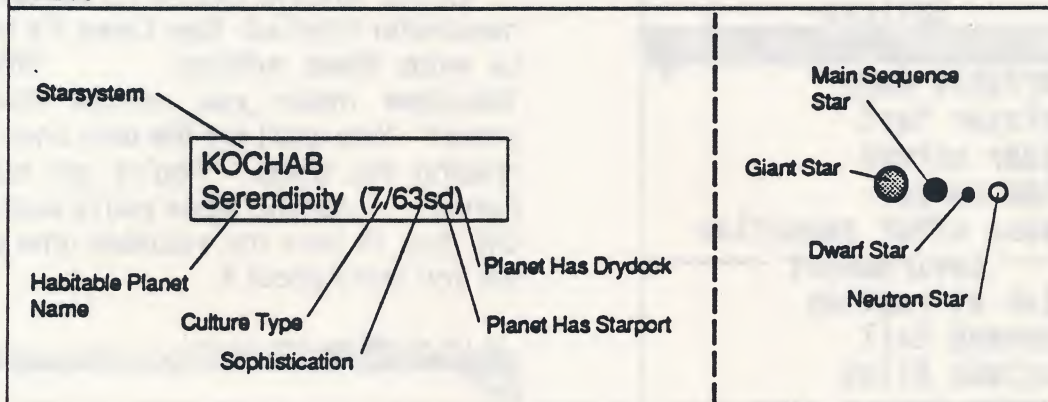




## LOCAL GROUP DIAGRAM



## KEY:



## Illegal Imports By Culture

Culture	Immigrants Legal?	Illegal Product Types:
1	Yes	(None)
2	No	Art/Artifact, Educational, Information
3	Yes	Art/Artifact, Narcotics, Jewelry, Entertainment, Personal
4	No	Art/Artifact, Educational, Narcotic, Clothing, Personal, Furnishings, Food
5	Yes	Weapons
6	No	Educational, Weapons, Transport, Information
7	Yes	Narcotic, Slave, Bogus
8	No	Educational, Weapon, Bogus
9	No	(None)

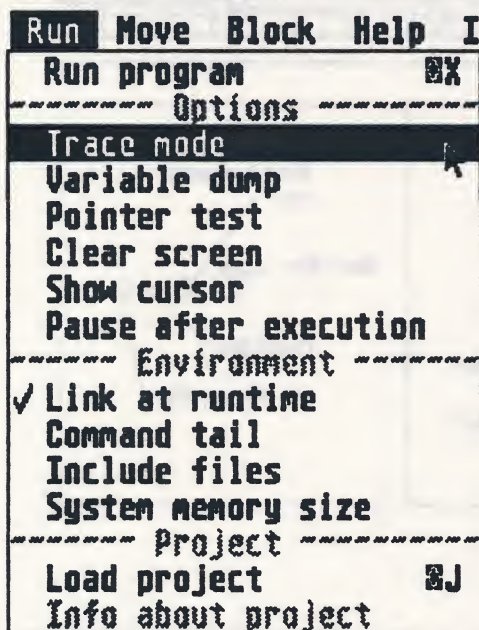


# HiSoft C

## A C Language Interpreter for the Atari ST

Reviewed by John King, JACG

The HiSoft C Interpreter is designed for both beginners and expert programmers. Since I, myself am a beginner this article will naturally be slanted towards the novice. You experts will not be completely left out in the cold, though. In fact, let me talk to you pros first: If you tend to write C programs that work without a problem the first time through, then you probably wouldn't use the HiSoft C Interpreter. If you are the opposite, and you are **always** having problems, you should buy this package. (If you're somewhere in the middle, then you will want to go right to the reviews listed at the end of this article.)



Now that all the experts have left this article, we novices can talk. If you have never had any exposure to any kind of programming concepts, then you should go out and get a good elementary BASIC book. Not to use BASIC, necessarily, but to learn the

elementary concepts of programming. You'll want to know what a "loop" is (as in For/Next), and you'll want to know what a Go To statement is, etc, etc. I don't know if Shaum's Outline Series has such a book, but that *type* of book should be sufficient. Remember, your intent is **not** to be an expert BASIC programmer; it is just to expose yourself to the simple, common **concepts** of programming.

As long as you have some idea of programming concepts (BASIC or some other language), even if you haven't done any real programming, per se, you will be able to benefit tremendously from the HiSoft C Interpreter. So, if you want to learn C, just put this article down right now and purchase it.

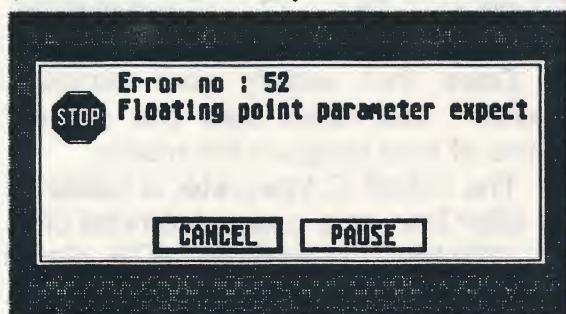
Done! Another review for the JACG newsletter finished. Boy, Dave, it's easy to write these articles. What? *Whaddya mean you wanna know more?* You and I are the only ones left reading this thing. You've got some nerve! ...Alright, since you're such an OK guy, I'll take my valuable time and tell you more about it.



The two things that make this package worth the money are:  
(1) The instruction manual, and



(2) The interpreter (i.e. the software).  
(Come to think of it, what else is left?)



First, I'll tell you about the manual. It is 329 pages, spiral bound. Not only does it have a large reference section, but it also has great tutorials. These tutorials will certainly not turn a beginner into an instant whiz, but they will teach a person to write simple C programs. This person will then be comfortable enough with the syntax (lingo) of C to be able to read the C books that the big boys use. You know, those books that normally instill horror in the beginner.

After the novice has gone through the C tutorial section he can then go through the GEM tutorials, if he wishes. According to what I've heard, GEM is normally difficult to learn. However, the HiSoft C manual makes it much easier. This is because not only are the standard GEM library functions supported (for the experts), but HiSoft has also included their own library (toolbox) of GEM functions. These are much easier to use than the standard ones, and the source code for them is supplied, in case you want to use them in a compiler later on.

Not only are the C and GEM tutorials really good, and not only is there a great reference section in the back, but Appendix E has a description of books for further reading. (I think a person's level of confidence in himself should determine which book to buy next.) Now as for the interpreter, well, ...it's an interpreter... and not a compiler. I'll let the instruction manual explain the benefits to you. (This is how to run a program with the HiSoft C Interpreter:)

"...save your program, leave the editor and load the first pass of the compiler with a stack size of 4096 bytes. If there are no errors, load the second pass and specify that you want a GST output file.

"There will be errors. And then you will need to include the file STDIO.H, which is on disk 4. Load the editor again to fix this. And then you link with the wrong libraries so it still doesn't work...

"No, don't worry, it's all lies. That's how it used to be." (Using a compiler, that is.)

"To run your program, click on Run program from the Run menu. That's it."

So how many instruction manuals have you read lately that have such a sense of humor? The above quotation gives you an idea of the value of using an interpreter to design your program.

Move	Block	Help	Info
----- Move cursor -----			
Top of file		BT	
Bottom of file		BB	
Go to line ...		GG	
Go to last position		BZ	
----- Marks -----			
Set mark 1		A1	
Set mark 2		A2	
Go to mark 1		A3	
Go to mark 2		A4	
----- Options -----			
✓ Indentation			
Auto line split			
Set tab length			
✓ Auto write			

It saves you a lot of time and aggravation when your programming isn't perfect. In fact, Charlie Young in ST World mentions that he had spent "numerous hours" trying to debug one of his programs with his MegaMax and Mark Williams compilers, to no avail. With HiSoft C he had the problem fixed in less than an hour. What a good package that will still be valuable even after the novice is no longer a novice!



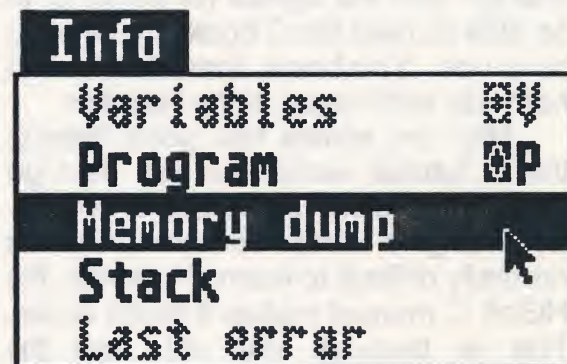
When you make a mistake, say you forgot a ";", an error message will appear on the screen. This seems like a nuisance at first, but when you think about how much time you would have lost by having this mistake in a compiler, you don't mind. Also, there are many options, such as to have the thing put in your "{}"s, or to indent for you automatically. How nice! Since I'm not an expert, I'm not sure which options are unique and worthy of noting. Macros, maybe? Just take my word for it, there are a lot of nice features I'm not mentioning.

After the novice becomes more experienced he will probably want to buy a compiler. Compiling programs which were written with the HiSoft C Interpreter is relatively easy with just about any standard compiler. (And, as a matter of fact, it "is almost totally compatible with Lattice C 3.") The expert who has already written a program with a compiler may have to make some modifications in his code to run his program under this interpreter, however. (Due to his compiler having extensions to the K&R standard, such as some of the new ANSI C's features, for instance.) Which reminds me, this

package "supports almost the full C language as described in Kerning & Ritchie's *The C Programming Language* (First Edition)."

Does that satisfy your curiosity, Dave? Just make sure you see my demo of said program this month.

The HiSoft C Interpreter is published by MichTron at a suggested retail price of \$99.95. (MichTron, 576 South Telegraph, Pontiac, MI 48053. 313-334-5700) The mailorder houses charge around \$65 for it. Now I will summarize: anyone who wants to learn C should buy this package. Also, C programmers that aren't perfect should consider it. They may want to read the following reviews for more technical details.



-ST World, September 1989 (page 40)

-ST\*ZMagazine (an online magazine) Vol. 1, No. 45 (11/3/89)  
(The publisher of ST\*ZMagazine, Ron Kovacs, is also a member of the JACG.)

-CPU Newswire Online Magazine Vol. III, No. 119 (12/22/89)

-ST Informer January 1990 (page 31)





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FCC Update

Multi-Tasking from Atari

The Club Room: Challenge and Opportunity

8-Bit PD/ShareWare Report

March 1990

Vol. II No. 3

# PC-Ditto II Problems

by Jerry Cross (and others)

The long awaited PC-Ditto II, an IBM emulation board, finally shipped to customers who had sent in their pre-paid orders. After months of eager waiting, most buyers will have to hang on for a while longer.

My PC Ditto II came in early February. I quickly installed it into my Mega 4, and it just wouldn't work. I attempted to place it into a 1040ST and again, it wouldn't work, but I had different problems. Calls to Avant-Garde produced a constant busy signal. It seems that almost nobody's boards DID work.

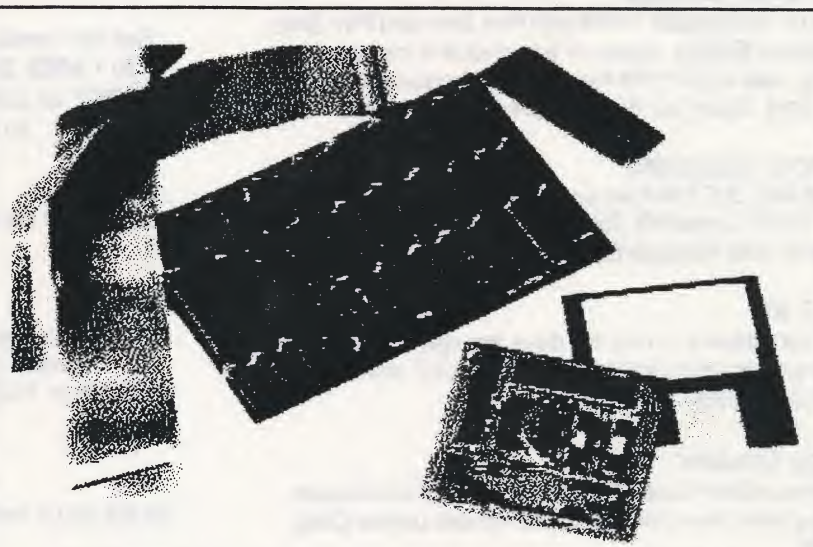
Problems include missing chips, missing software, missing documentation, and simply not enough room in most machines for the huge board. The clip for mounting the cables to the CPU is too large and tends to come off... making many people solder it in place. Mega machines can't run if the Blitter is enabled, or if the CPU has the common daughter board already mounted. And IF you get it fully installed, MOST won't run at all due to what appears to be a timing problem. The MS DOS will begin to load, and POOF, lockup. The cable that was supplied with this package is a flat ribbon cable. It is extremely thick and hard to bend into a decent configuration. Anyway, the only place most 1040 owners will find to place the board will be OUTSIDE the back of the computer!

I also had my first look at the PC-Speed board from Michtron. It is about 1/4 the size of the PC-Ditto board, and **should** install without a problem... most of the time.

The PC-Speed board also connects directly over the 68000 chip, and the board extends toward the back of the computer. It is designed to be placed partly under the disk drive (on most 1040STs). On the machine I saw, it was necessary to cut away the disk drive supports. This made the drive hang unsupported so another hole was drilled in the case and a new support added. Then, the disk drive rested too high up, on top of a couple socketed chips. We ultimately removed the sockets and soldered the chips directly to the board (a tedious job). My own 1040 did not have these sockets so the installation

would have been simple.

Avant Garde has posted the following information about their product and fixing it: "We have found the problem with pc-ditto II hardware not working with some STs. We were correct about the changes in timings of some machines being the heart of the problem and our correction widens the tolerance for machines with different timings. Correction involves replacement of two socketed chips on your pc-ditto II board. The chips are labeled: U27 GLUPAL and U15 EMSPAL. Carefully



PC DITTO II (rear, with clip and cables) and PC SPEED (shown with disk for scale) IBM Emulators for the ST

remove these chips, observing static discharge procedures. Wrap the two chips in a soft packing material and return them to Avant-Garde Systems, 381 Pablo Point Drive, Jacksonville, Florida 32225. Please include your name and return address. We will return two new replacement chips immediately along with instructions on replacing them. We are now working on a blitter fix and standardized Mega expansion port fixture and will post a message soon about those items." ●

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# Z\*Net Newswire...



⇒ "Retired" major stock holder of Atari Corp and father of CEO Sam Tramiel, JACK TRAMIEL is back at the helm of Atari. Reports from inside and near the company confirm that Jack has resumed, for at least the moment, a major role in guiding policy and planning. Sons Sam, Leonard, and Gary were apparently not performing up to Jack's expectations, plus dad felt it was time to settle some internal disagreements with some firm supervision.

⇒ Atari Computer (USA) appointed yet another new President in February. Meade Ames-Kline comes to Atari from Koala Springs Beverage Corporation, and is expected to have strengths in marketing and distribution that will offset his lack of experience with a computer product line.

⇒ Jay Crosby, longtime right hand to Sig Hartmann at Atari (until Sig's November '89 "retirement" to become VP at TeleVideo), announced in February that he will leave Atari to join MIGRAPH. Jay and family will be moving Washington State shortly to do programming for the well known and respected software house. Migraph's best known ST products include EASY DRAW, TOUCH-UP, and the HAND SCANNER. Migraph's Liz Mitchell says that the new IBM versions of the ST applications are selling great all over the world, but that efforts will shortly focus on a new ST graphics application package to premiere sometime in the spring.

⇒ Partially due to the FCC rating that allows sale of the STACY to music store outlets only (for now), and partially due to the fact that the batteries in the hard drive equipped STACY last FIFTEEN MINUTES ONLY (!), STACY has been redubbed by the marketing department as the "STACY Portable MIDI Controller". That's the long-form title that is being applied in new advertising and information

pushes. Perhaps if and when it is redesigned to pass FCC regulations as a COMPUTER, it will again be a "Laptop".

⇒ Backordered Mega 2 machines (unavailable since sometime last fall) are now being shipped... as MEGA 4 units... to dealers at NO increase of dealer cost above the STILL unavailable Mega 2 machines. This "windfall" is appreciated by dealers who have not since cancelled their backorders. The favor pales a bit when one considers that RAM prices have fallen by much more than 1/2 since last September... and the Mega list prices remain unchanged. By the way, late production Mega 2 units that CAN be found do NOT have any reasonable way to upgrade the RAM to 4 meg! Atari Monitors are in hot demand, but remain unavailable. Meanwhile, monochrome monitors have been back ordered at Atari since late fall, and only about 400 of the over 800 back ordered units shipped in February. Popular assumption at Atari is that the "low" stock on some items is due to concentration on major build-out of the Portfolio, of which 18,000 are supposed to be in the warehouse. Also back-ordered for some time: Mice (now being delivered); 520STFM's and 1040STFM's (which are out of production, hopefully awaiting the U.S. STE).

⇒ Dealers have had an alarming return rate on defective Portfolio computers. The breast-pocket wonder sells like hotcakes, but distribution people have mentioned that returns of some production runs reaches as high as 80% DEFECTIVE. Newer machines appear to be more reliable, and many returns may be due to a simple bug with a simpler fix. Some versions of the operating system will crash endlessly if a 0 byte file is attempted to be loaded. No big deal, but if you open a file, save it without any contents (VERY easy using the internal applications), the Portfolio will then crash every time you enter the application

(it tries to reload the last file). Just delete any ZERO size files from the DOS prompt, and you are back in business.

⇒ Developers have been polled by Atari as to their preferences regarding the type of card slot that might be integrated into a possible redesigned MEGA. Assuming that a MEGA could be built based on the STE technology, they were asked, which type card would be preferable: the existing MEGA BUS as implemented in existing MEGA computers, or a VME BUS that would match the European standard that has already been adopted for use in the coming TT computer. Most response has been enthusiastically in favor of the VME system in order to provide better, cleaner, more compatible additions to all future Atari computers. A few developers have complained that to abandon the MEGA bus (even though it is noisy, unique among all computers, and used by very few devices to date) would be going back on expandability promises that were made about the MEGA line when it was new. Regardless of the BUS, the very question give some hope that the two-part case design will in fact be retained and that the MEGA series will both survive and even be improved.

⇒ Amid the closings of many formerly popular ST magazines (ANALOG, ST-LOG, ST-XPRESS, etc.), a new magazine will begin publication this spring. ST JOURNAL will be a serious-minded monthly patterned more like PC magazines and less like gamer tabloids. To be available in late March with an April cover date, the first issue will go to 10,000 or more ST users. Editor Tim Lewis and production/art director Steve Lesh have experience in other Atari magazines, and expect to set a new standard of excellence and service in a "real user" publication. Headlining columnists and contributing editors include Andrew Reese, John Nagy,

Jim Allen, John King Tarpinian, Norman Weinress, and more. Contact QUILL Publishing, 818-332-0372 for more information.

⇒ The largest gathering ever of Atari computer users in Canada is expected at the upcoming Second Canadian Atari Users' Convention to be held at the Airport Hilton Hotel On April 1, 1990 from 10am to 6pm. Sponsored by the Toronto Atari Federation, one of the largest computer user groups in North America, the show will include a major exhibition by Atari Canada. The Second Canadian Atari Users Convention is being held at the Airport Hilton Hotel, located on Toronto Airport Strip, 5875 Airport Rd., Mississauga, Ontario. Call (416) 425-5357, or the TAF On-Line BBS at (416) 235-0318

⇒ Organizer John King Tarpinian has just issued a preliminary press release announcing that the Premier West Coast user group Atari show will be back this September: "The Southern California ATARI Faire, Version 4.0b will be held on September 15 and 16, 1990. It will be held at the Glendale Civic Auditorium, Glendale, CA. Hours will be Saturday, 10:00 AM to 6:00 PM, and Sunday, 10:00 to 5:00 PM. For EXHIBITOR information, write: John King Tarpinian, 249 North Brand Boulevard, Glendale, CA 91203, or call 818-246-7286." The last Glendale show was scheduled for last fall, but was cancelled due to poor dealer response during a flurry of one-week apart show dates and a last minute additional California show conflict (also later cancelled) by the World of Atari shows. This year, the shows appear to all be more conservatively scheduled, and the Glendale show is sure to be its traditional success.

⇒ After considerable doubt, it appears at this time that Atari will be supportive of

Continued...





## ...Z\*Net Newswire



the World Of Atari show to be held in Anaheim, California, April 7 and 8. While Atari show stock is at an all-time low, and promoter Richard Tsukiji has promised vendors lots of equipment from Atari, CEO Sam Tramiel has commented that Atari must do all it can for shows. Some observers were concerned as to whether the Disneyland WOA would happen at all after seeing a series of ads in Tsukiji's own ST WORLD magazine. First, it was shown as a three-day affair, April 6, 7, and 8... the next ad said only 7 & 8... and the next month, the same ad ran but with no dates whatsoever. However, the newly released issue again says April 7 & 8, at the Disneyland Hotel. Z\*Net will be there, bringing you live reports and pictures.

⇒ Another Atari show in April is to be sponsored by PACE (the Pittsburgh Atari Computer Enthusiasts) at Chartiers Valley High School, near Pittsburgh, PA. on April 28th and 29th. Call the PACE BBS at (412) 571-0891 or (412) 843-0628 voice after 5:00pm EST.

⇒ Nathan Potechin of Canada's ISD announced that they have completed an output conversion module for CALAMUS OUTLINE ART that will convert the remarkable graphics program's output to either PostScript or Encapsulated PostScript format. This will allow many non-Calamus platforms to use art and logos developed under the unique Outline system. At this time, it appears that the converter will be sold at some additional cost rather than included with OUTLINE ART, itself not quite ready for distribution. Plans for the future include a similar converter for CDK files, the actual full page output of the CALAMUS desktop publisher program.

⇒ Bulletin boards have turned up an import from Australia that purports to be a working ST emulator for use on Amiga computers. A set of serious looking intro screens

go on about the program and how to use it, and how Atari can't touch them for doing it "because we aren't charging for it". Despite our best attempts, we were unable to get past the point at which the ST is to be inserted. Unfortunately, I was unable to get a copy of the disk. One can guess it is intended to do more than churn the disk drive, and if it worked at all we'd like to see it. Let Z\*Net know if you have further details on this program.

⇒ A huge Dutch Atari User Group called SAG (that's Dutch for something meaning Foundation of Atari Users) is disbanding due to lack of active members. According to a Z\*NET reader in Holland, SAG had a President who just had his work transfer him to another part of the country, and a newsletter editor who had to quit due to a serious foot injury. Suddenly, the 5,500 member club ground to a complete halt, with no one stepping forward to fill the vacancies. Their December 1989 newsletter is expected to be their last. (And we complain when we find it hard to get volunteers out of a club of 30-50 members!)

⇒ Nevin Shalit, writer for ST-Informer magazine, confronted ST software developer and importer Gordon Monnier with charges of using someone else's name to leave a series of messages slapping a competitor on GENIE. A series of events and similarities in messages led Shalit to believe that BSTONE was in fact GORDON MONNIER, owner of MICHTRON. The name BSTONE was used in many messages on GENIE that were outspoken about how bad PC-DITTO II was doing, and how much better the competing Michtron product PC-SPEED was. Nevin investigated further and found that BSTONE was in fact an free internal account at GENIE, registered to Michtron. Still more checking resulted in finding Brian Stone himself, a former Michtron employee who has allegedly told Shalit

that he had no knowledge of any messages and also had no idea that anyone else was using his old account. Shalit charged Monnier with deliberate deception, of using the name as a cover to snipe at his competition without appearing to do so. Monnier responded early in the fray with a denial, but then added a discussion to the effect of "but so what if I did do it?". A later post from Monnier angrily proposed that all persons commenting should "put their money where their mouth was" and contribute \$100 to a charity for every time they lied online. This has been taken by some as a denial, and by others as an admission.

⇒ Gadgets by Small will very shortly be sending notices and newsletters announcing their latest update of the SPECTRE GCR software. The mighty MAC emulator Version 2.65 will replace current version 2.3K (although most disks say 2.0), and includes numbers of improvements. Although the "system clock" still is dead (although no time is wasted this way!), compatibility is UP. Among the newly usable programs is the PRODIGY front-end software for use of the IBM/SEARS telecommunication service... making Spectre the first ST avenue into that service. IBM emulators have failed to run the PC version of Prodigy to date. In other SMALL news, Dave Small says that the 68030 upgrade project that he and Jim Allen (of FAST TECHNOLOGY) have been working on for the last few months may be ready for an operational display at the April Atari show in Anaheim. Still too far off to say much about commercial availability or price, but Dave says that 16 MHZ operation is assured, and he hopes that he will have 32 MHZ workable enough to show soon too. These upgrades will make an ST really fly, perhaps performing at speeds even above those projected for the 16 MHZ "TT" from Atari.

⇒ Z\*Net received a sample

ST program disk in CD ROM format from the company that designed the system for Atari, D & C Enterprises. Company rep Carl Bacani contacted Z\*Net to ask us if WE knew why Atari was not moving on the sales of the completed player units after reading our reports of the Atari developer support plan. We reported that Atari plans to use the CD ROM units in dealerships for demos of software. Bacani wondered if we had a clue to why Atari won't sell the units to consumers... since his company had completed the system AND driver software LAST YEAR. Atari has said that the reason for withholding the units has been due to a lack of driver/interface software. Although we don't yet have a real answer, more than one Atari insider has suggested that Atari has no idea how to market the new device to end users, or even what price point to target. Hence, the decision to use them internally for the foreseeable future. Yikes. D & C Enterprises, 3785 Balboa Street, San Francisco, California, 94121, (415) 751-8573.

⇒ Insiders at Commodore Business Machines reported that the recent huge AMIGA advertising campaign was so costly that it would take a 38% increase in AMIGA sales to break even. Now that the dust has settled and the last of the famous visitors have left the levitated house of the Spielberg commercials, the results are in: Amiga sales are indeed up... by about 10%. Commodore may again be in SERIOUSLY DIRE financial straits in 1990. ●

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# THE CLUB ROOM - Challenge and Opportunity

by Leo Sell (CHAOS - Lansing, Mich.)

[Editor's note: Our CLUB ROOM series of articles attempts to offer ideas and observations that have spelled success for some clubs, in the hopes that the successes can be shared. If you or your club have done something unusual or especially helpful to itself or the community, send it to us for THE CLUB ROOM!]

I've been asked to share a little about how my club, the Capitol Hill Atari Owner's Society (CHAOS) has collected, organized, and profited from our disk libraries. In thinking it over, and discussing the subject, other means of producing revenue used by other clubs also came to mind. Perhaps these ideas will trigger other ideas for all of you.

I'll start with a brief history of the CHAOS Library. CHAOS, from its inception, has been blessed with leaders and volunteers who insisted on structure and organization in each aspect of the club. Our first librarian applied the principles with relish (to the disks, not the hot dogs). Instead of a mishmash of programs, stuffed in a chronological willy-nilly onto disks, he insisted (thankfully) on carefully structuring the library - Utilities, Games, Demos, and so on.

That structure has been continued even as the club grew and began supporting the ST computers.

Each librarian since, having the structure already established, has been able to concentrate on collecting new, quality programs, and preserving the organization of the library. With the volume of new programs that is sometimes available, we do on occasion offer disks with a mixture of programs - a Disk of the Month - in order to get programs right into members' hands. But all of the programs are eventually absorbed into the proper library category.

Not that things stay static. The ST is so much more capable that our librarians have had to expand the categories to reflect it. And we continue to update and collect new public domain and shareware programs.

By the way, once you've established a structure (like ours or any other), I think the most valuable asset you can have is a member who enthusiastically collects and checks out new programs. A member like that is worth their weight in disks!

The long and the short of it is that because of the structure and organization established early on, and preserved as time has gone by, CHAOS has one of the best organized public domain libraries around. And because we aggressively update and add programs, it's also one of the most complete. And it has come to make us money in an unexpected way.

## INNOVATIVE THINKING

About three years ago, one of our members came up with an idea on how to use the library to better advantage. The library had become very large, and was clearly too much work and/or too expensive to expect large-scale purchases. His suggestion: rent it out! Since CHAOS had a very complete, highly organized disk library, and other clubs and individuals might not have the means to put it together, or to buy the disks outright, we thought it would be a great way to distribute the library in an affordable manner. Let clubs or individuals substitute their own effort in copying on their own media. We'd provide a master from which to copy.

It worked very well from a revenue standpoint and was well received by those who rented it. That was a couple of years ago. A lot of programs have been upgraded or developed since then. So.... we've updated both the 8-bit and

the ST libraries, and we're once again offering a rental deal.

If you or your club would like to rent one of the most complete and best organized p.d. libraries around, here are the details. Renting the 8-bit is \$75 with a \$125 deposit; the ST library is \$99 with a \$200 deposit. Rent both for \$150 with a \$300 deposit. And we're not forgetting those who rented before - we do offer a special deal for you. If you want more information, write: CHAOS Rental, PO Box 16132, Lansing, MI 48901. (End of commercial).

## INNOVATIVE THINKING II

So why did I title this section, "Innovative Thinking" and what does that have to do with other clubs? My point is this: pay attention to the innovative thinkers in the club. A number of clubs have used ideas like the CHAOS Rental Program to make money and support their operations. Here are a few examples:

JACS (Jersey Atari Computer Society), when PrintShop was at the height of popularity, worked very hard to collect icons. They ended up with six disks full or more. They marketed them to other individuals and user groups for a reasonable fee. Their hard work saved the customers a great deal of trouble and made the club a nice chunk of change.

GAG (Genesee Atari Group, Flint Michigan) has capitalized in several similar ways. At various computer shows, I've seen them sell a new (at the time) and creative disk labeling program written by a member and displayed for maximum impact. They've also done well simply by labelling their disks well at a show and displaying them on sale boards where they could be easily seen and inspected. Lately, some of their members have cooperated to make up numerous Blitz cables to sell to ST users who would just as soon let someone else do the work.

CHAOS once made a special deal on a 256k upgrade board for 800XL's. By careful purchase of ram chips, we were able to offer a fantastic deal on upgrades.

Clubs and their members are only limited by their imaginations. Let 'em loose. I know sometimes we all get a bit burned out. But, keep your eyes open for opportunity. When it arises, latch onto it. Your club won't make millions, but it might make enough to keep operating for another year or two. It all boils down to good ideas and good marketing (strange concept for Atari folks, huh!). GOOD LUCK Atarians. ●

## The Z\*NET Online BBS

by Ron Kovacs

The Z\*Net Online BBS officially hit the phone lines on December 17, 1989. Our main purpose for putting the system up was to get our weekly online magazine to those who didn't have access to the pay services. Z\*Net Online Magazine is provided in three formats, ASCII, ARCD and LZHARCD.

Along with Z\*NET Online issues, past issues of ZMagazine and ST\*ZMagazine is available for those looking to complete their library. Utilities, pictures, animations, 8-bit files, and press releases are available to first time callers without validation delays.

Message bases include Atari news, technical assistance, plus a new separate Classified Advertising area. Messages we find interesting are immediately flagged and saved for inclusion in our weekly magazine. BBS systems supporting Z\*Net are also encouraged to input their ads in the message base for reprinting in Z\*Net.

If your interested in contacting any of the authors/editors like John Nagy, Ron Kovacs, Alice Amore and our newest member Robert Ford (aka CyberPunk), give the Z\*Net BBS a call at (201) 968-8148.



# FCC UPDATE - A Call to Arms

by Eric Florack

Many of you know that most of our government types don't have the foggiest idea of what tele-computing, or for that matter, computing itself as a hobby, is all about. With the following bill as example, I rest my case. The bill in question would amend section 94-a of the public service law. Read, in particular, the words in ALL CAPS. This is the section that would, if enacted, change the existing law.

5604 1989-1990 Regular Sessions

IN SENATE May 15, 1989

Introduced by Sen. Dunne -- read twice and ordered printed, and when printed to be committed to the Committee on Energy

AN ACT to amend the public service law, in relation to protecting the confidentiality of individuals in whose name identifying information is entered into advertisements on electronic bulletin board or interactive phone services.

THE PEOPLE OF THE STATE OF NEW YORK, REPRESENTED IN SENATE AND ASSEMBLY DO ENACT AS FOLLOWS:

## Section 1. Legislative findings and intent.

The legislature hereby finds that while the content of private communications and advertisements should be afforded the fullest protection practicable and due under the constitutional protections of free speech, there is also vital considerations of privacy and the emotional well-being of the residents of New York state that require a balancing of those interests. It is the intent of the legislature that the public service commission promulgate regulations that will serve to prevent the invasion of privacy and severe emotional stress imposed upon persons whose names and other identifying information such as numbers or addresses are placed in advertisements on electronic bulletin board or interactive phone services without verification of their voluntary informed consent.

Section 2. The public service law is amended by adding a new section 94-a to read as follows:

Sec. 94-a. **PROTECTING CONFIDENTIALITY IN ELECTRONIC BULLETIN BOARD AND INTERACTIVE PHONE SERVICES. THE COMMISSION SHALL HAVE THE POWER AND DUTY TO PROMULGATE SUCH RULES AND REGULATIONS AS ARE NECESSARY TO ENSURE THAT TO THE MAXIMUM EXTENT PRACTICABLE, THE CONFIDENTIALITY OF ANY RESIDENT OR DOMICILIARY IN WHOSE NAME ADVERTISEMENTS OR COMMUNICATIONS ARE PLACED ON ELECTRONIC BULLETIN BOARD SERVICES OR INTERACTIVE PHONE SERVICES, IN CARRYING INTO EFFECT THE PROVISIONS OF THIS SECTION THE COMMISSION SHALL TAKE INTO CONSIDERATION THE EXISTENCE AND RELIABILITY OF PROCEDURES TO VERIFY THE VOLUNTARY INFORMED CONSENT OF ANY DOMICILIARY OR RESIDENT OF NEW YORK STATE TO THE PLACEMENT AND CONTENT (INCLUDING BUT NOT LIMITED TO THE NAME, TELEPHONE NUMBER AND ADDRESS) OF ANY ADVERTISEMENT OR COMMUNICATION PLACED BY OR ON BEHALF OF SUCH RESIDENT OR DOMICILIARY ON ANY ELECTRONIC BULLETIN BOARD SERVICE OR INTERACTIVE PHONE SERVICE.**

**NO TELEPHONE CORPORATION SHALL BE LIABLE FOR ANY DAMAGES, FINES OR OTHER PENALTIES RESULTING FROM (i) ITS GOOD FAITH EFFORTS TO COMPLY WITH THE REQUIREMENTS OF THIS SECTION OR RULES AND REGULATIONS PROMULGATED HEREUNDER, OR (ii) ITS GOOD FAITH EFFORTS TO COMPLY WITH ANY COURT OR REGULATORY ORDER OR REQUEST FROM A GOVERNMENT LAW ENFORCEMENT OR REGULATORY AGENCY CONCERNING THE IMPLEMENTATION OF PROCEDURES THAT MAY BE IN VIOLATION OF THIS SECTION OR RULES OR REGULATIONS PROMULGATED HEREUNDER.**

Sec. 3. The public service commission shall promulgate rules and regulations implementing the provisions of this act within 180 days of the effective date of this act.

Sec. 4. This act shall take effect IMMEDIATELY.

Comments from Kevin McLeavey, SysOp of THE BIG EXPERIMENT BBS from the Albany area say it far better than can I, so... with thanks to the TBE BBS:

While the actions in Texas and Florida may be old news to a lot of you by now, the Proposed NY state law and the NY PSC hearing may have the most potential for killing off the BBS hobby.

NY Senate Bill S5604, proposed by State Senator John R. Dunne

(Nassau County) would have far reaching impact on the BBS hobby. Sen. Dunne's law, if enacted would seem to require that a SYSOP must validate each and every message posted on his board, in addition, it would require him to have a signed sworn affidavit in hand before any message containing a real name, an address or a phone number could be released on the board. Further, it would also seem to require that he install, at his own expense, a device that would automatically record the telephone number of each person who calls his BBS.

It would affect small, free hobby type BBS systems, as well as systems such as Compuserve and GENie. Communications such as E-mail, which are considered private would have to be monitored to ensure compliance with this law. This would seem to fly in the face of numerous Federal laws governing the right to privacy, if not the First Amendment to the Constitution.

It would seem that the expense to the SYSOP imposed by this law would mean the death of the small free hobby type BBS that many of us now use or run, and it would also mean an increase in the cost of using commercial services such as Compuserve as the would have to comply with the provisions of this proposed statute. It could, in fact, mean the cessation of operations by Compuserve within the New York State as NY would become the only state requiring such safeguards. Sen. Dunne would better serve his constituency by addressing the problem through strengthening and fine tuning the existing laws.

The bill, itself, is currently in the energy committee, where all bills pertaining to the PSC go. It's to be acted upon this spring. (Not so far off!) Meanwhile, you might want to contact your state senator's office, (you DO know who that is, right?) and secure a copy of S-5604. It's free for the asking. If they get enough action, they will want to know WHY so many folks are interested in this bill. Then, it's our turn to TELL them. I'll keep you posted. Here's another example, this time at the Federal level:

## MOBILIZE

Now, they are at it again. A new regulation that the FCC is quietly working on will directly affect you as the user of a computer and modem. The FCC proposes that users of modems should pay extra charges for use of the public telephone network which carry their data. In addition, computer network services such as CompuServe, Tymnet, & Telenet would also be charged as much as \$6.00 per hour per user for use of the public telephone network. These charges would very likely be passed on to the subscribers. The money is to be collected and given to the telephone company in an effort to raise funds lost to deregulation.

Here's what you should do (NOW!):

1- Pass this information on. Find other BBS's that are not carrying this information. Upload the ASCII text into a public message on the BBS, and also upload the file itself so others can easily get a copy to pass along.

2- Print out three copies of the letter which follows (or write your own) and send a signed copy to each of the following:

Chairman of the FCC Chairman, 1919 M Street NW., Washington, DC 20554

Chairman, Senate Communication Subcommittee, SH-227 Hart Building, Washington, DC 20510

Chairman, House Telecommunication Subcommittee, B-331 Rayburn Building, Washington, DC 20515

Here's the suggested text of the letter to send:

Dear Sir,

Please allow me to express my displeasure with the FCC proposal which would authorize a surcharge for the use of modems on the telephone network. This regulation is nothing less than an attempt to restrict the free exchange of information among the growing number of computer users. Calls placed using modems require no special telephone company equipment, and users of modems pay the phone company for use of the network in the form of a monthly bill.

In short, a modem call is the same as a voice call and therefore should not be subject to any additional regulation.

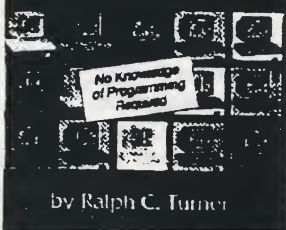
Sincerely,

[your name, address and signature]

It is important that you act now. The bureaucrats already have it in their heads that modem users should subsidize the phone company and are now listening to public comment. Please stand up and make it clear that we will not stand for any government restriction on the free exchange of information. ●



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**-John Nagy, reviewer for Computer Shopper**

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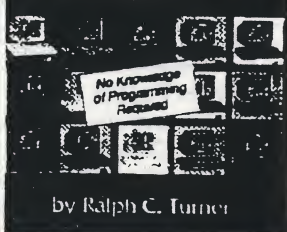
**-Charles F. Johnson, Codehead Software**

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# MULTI-TASKING FROM ATARI CORP

by John Nagy

We've heard much hollering through the years from our comrades who bought "the other" machine about how they have "multi-tasking" and the Atari does not. And many third-party developers have come up with various alternatives to give some multi-processing abilities to our machines. Some, like JUGGLER (MICHTRON) and REVOLVER (INTERSECT) achieve a type of multiple environment that allows the user to suspend one program and join another, then switch back at will. These are not "multi-tasking" because only one can actually run at one time. Other systems achieve a degree of real multi tasking through desktop accessories that run "background", like the MYSTIC DISK FORMATTER and the SHADOW downloading utility.

Still other companies have redesigned the entire operating system and produced a true multi tasking environment in a UNIX work-alike design. These include IDRIS and the BECKMEYER RTX systems. These offer real processing of multiple applications even by multiple users all at the same time, but usually at the cost of the GEM interface. Since most users come to the Atari ST because of the easy to use graphic interface, these systems are not a good solution for many. All existing GEM programs are simply unable to run... and a return to the command-line interface is too much to expect for most Atarians.

Musicians have probably the largest need for signal processing in real-time, with many programs each doing something to/for/about a MIDI event. Thus, many developers have come up with integrated systems of their own to make the most of a single computer. But most of them are only designed to interact with their own company's software, limiting the usefulness of the multiple processing for user of several brands of software. Competent systems of this type are offered by STEINBERG, DR. T, and C-LAB to name only a few.

Now, Atari Corp has selected a true multi-tasking environment to be promoted as the standard for the MIDI market. Called "MIDI-TASKING" because of an Atari belief that it has particular value only to the musician's market, it will nonetheless be useful in other applications.

Atari's MIDI-TASKING system was designed by Intelligent Music of New York, and was to be called "ST RAM" until Atari selected it to be their chosen standard. It is a combination of AUTO and ACC files, enabling up to six independent and autonomous partitions, each running simultaneously. Screens from each partition can co-exist on the monitor (easiest on the huge Monitorm), although screens will not be updating on "unselected" windows. Shown at the January NAMM show in Anaheim, it really works - I saw it. Designers Mark Brown and Eric Ameres proudly displayed it in operation and entertained lots of questions and answers. Intelligent Music President Joel Chadabe emphasized that the system was to support all MIDI developers and systems, not just to single out one system as "best" or "sanctioned". Developers were given beta copies of the system to help work out just what MIDI-TASKING will be when completed, and how long it will take to be ready for market will depend on just how much the developers want to add or change.

From what I saw on the screen, Midi-tasking has several parts. The individual GEM environments arise through the use of the desk accessories. At run time, you have the choice of letting the application selected determine the amount of RAM needed for it, or you can set the memory limits manually. Once allocated, the application is not relocatable in the machine memory. However, applications that have been terminated appear to return their RAM to the usable pool, even if the available RAM is not then contiguous within the

machine.

Internal "patch bays" allow piping of MIDI information between environments, as though each partition had its own MIDI ports. The "real" ports are allocated to whatever application is desired by the operator. Same goes for printer and RS232 support, it is switched within the system among well-behaved (read: carefully written to the MIDITASKING standards) programs.

To quote from Atari's MIDI MAGAZINE, a handout at NAMM that promises to be a quarterly feature:

*"The data-sharing system, or 'scrapbook', offers a unique set of features specifically for MIDI program users..."*

*"The MIDI-tasking system's built in timers can be shared by programs and are the key to multiple realtime sequencing. MIDI applications can be run synchronously - either through an internal timer or from an external timing source. The programs tell the MIDI-tasking system's timers how often and at what resolution periodic tasks should be run. Any MIDI-tasking system-compatible application receives automatic SMPTE and MIDI Time Code (MTC) support, with simultaneous support of 768 ppq, 960 ppq, SMPTE-bit, and millisecond timers.*

*"Atari officials emphasized that the key difference between the Atari MIDI-tasking system and systems such as Softlink, MROS, MPE, and Hybridswitch is that the Atari system uses the ST's built in GEM kernel to do multi-tasking, giving the user simultaneous access to all programs."*

It should be noted that the Atari system is "compatible" with most or all of the existing "switcher" and internal multitask systems from the MIDI developers... several "incompatible" sets of interactive programs can trade data from separate simultaneous environments. This fact was not completely clear to some developers at NAMM who were, at first, adamantly against "some other" company's concept of a multi-task standard. Having invested in years of development of ones own internal standards, these developers felt threatened by the new system until they understood that their systems could work within it with greater benefits all around.

What does the multitask environment offer to non-musicians? A lot, and a little, depending on the application. There is little point in much that passes for multi-tasking. Most programs do nothing much while not being operated (word processors for example), and other applications are greedy about memory and peripheral usage. As a result, most users have little need for true multitasking. Yet we hear a lot about it from our Amiga friends... well, now we will have it too. Without a doubt, it will likely spawn some nifty program combinations for those of us who have large amounts of RAM.

Again from the Atari MIDI MAGAZINE:

*"Many GEM program can be used with the Atari MIDI-tasking system, assuming the program was written according to Atari's established guidelines. Although the system can work with non-MIDI applications, Atari doesn't plan to promote the MIDI-tasking system outside the music market.*

*"The Atari MIDI-tasking system functions with all Atari MEGA and ST computers. A minimum of one megabyte RAM is recommended. The MIDI-tasking will soon be available through Atari dealers for \$12.95 suggested retail."*

Intelligent Music of Albany, New York, will continue to manage the development of the MIDI-tasking system, under license agreements with Atari. Plans include bundling the completed system with the STACY portable ST for sale in music outlets. ●



# The 8-BIT Public Domain & ShareWare Survey

by Sally Nagy

**TEXTPRO PLUS (TP+) version 4.5** (TP454.ARC, TPDOC45A.ARC, TPDOC45B.ARC, TPDOC45C.ARC) -- SHAREWARE! TextPRO+ 4.5 is the MOST ADAPTABLE VERSION ever. It configures itself automatically to support five different DOS at startup and provides subdirectory support from the menu for all versions of SpartaDOS and MyDOS 4.5. This release has been expanded to answer users most frequent software adaptation requests. All aspects, including basic editor, macro, menu and print features are covered in its documents. Key re-direction allows the user to assign key commands to whatever control keys are desired allowing users to reshape their copy of TextPro to meet their specific needs. Configure printing defaults, programmable softkeys, size of paste buffer (from 260 bytes to 4K) The editor now calls inverse macro keys, doubling its potential. New support is found for wildcards in deleting and renaming operations. Previous users are encouraged to read the new documentation or they may overlook some useful added feature such as the ability to pause and break a global search. Ronnie Riche asks users to notify him of any bugs or quirks they find in this release along with details of their system setup. He says he reads ALL letters BUT only respond to registered users. TextPro Plus may be uploaded to BBS ONLY by its registered users. Anyone who has a registered version of previous releases can save \$10.00 for this program. Registration Fee and Distribution Disk are \$40.00 while the Distribution Disk by itself is \$15.00. Ronnie Riche, 1700 Aycock St., Arabi, La 70032.

**MACSHOW.ARC** allows 8 bit users to view MacPaint pictures. Patience is required while loading the large MAC pictures contained in this archive, B17 Bomber, Dragon, Lady, and Restaurant scenes. Pictures can be jockeyed around to see all the details by using the cursor control keys, joystick, or touch table. More modified MacIntosh pics are available from: Anthony Ramos, 288 East 14th Street, Room 22, Columbus, Ohio 43201.

**AB50DOC.ARC** contains a text file containing a summary of the Atari 850 interface module ports, commands and errors. Developers and hackers will find this file useful. (If you need fuller explanations of all commands and details on how to use them effectively get The Atari 850 Interface Module Operator's Manual, copyright 1980 by Atari, Inc. It comes complete with examples and illustrating BASIC programs. The book can be purchased for \$10 from B&C Computervisions, 3257 Kifer Road, Santa Clara, CA 95051, (408)749-1003.)

**BOOTSCR.ARC:** Jeff Ward was tired of viewing the same Boot Screen, so he put to use the stacks of Graphics 9 pictures he had laying around. SpartaDOS users can create a startup batch file while other DOS users must rename it autorun.sys and follow the prompts when it is running, entering a search path for the pictures and the number of seconds to have the file displayed. Depress any key to clear the picture and display its name. Those pics you dislike can be easily deleted from your personalized bootup directory.

**DRAPER PASCAL Version 2.1** (PASCAL.ARC, PASDOC.ARC) by Norm Draper is offered as SHAREWARE. It allows users to create, compile, and execute programs written in Pascal. One can evaluate Draper Pascal to see if its suitable for his/her use. If you wish to continue use, register by sending in \$15.00 and receive the latest version of the software along with a comprehensive user manual. Documentation provided in the archive is designed just to get one started using Pascal. It does not contain a detailed description of all the Draper Pascal

definitions, or pretend to be a comprehensive tutorial or reference. Supports SpartaDOS 3.2d, MyDOS 4.5, Atari 2.5 DOS and the use of ramdisks. Register by sending \$15.00 to Draper Software, 307 Forest Grove Drive, Richardson, TX 75080-1939. (Texas residents add 8% tax.)

**CONVERT.ARC** contains three basic programs to aid in determining disk space when downloading from paid services such as GENIE. BYTECONV.BAS converts Bytes to Sectors. BLOKCON1.BAS and BLOKCON2.BAS convert bytes to blocks and sectors. This is useful for 1K Xmodem and Y-modem Batch file transfer protocols. These programs print out conversion tables.

**NOTETABL.ARC** is a musical note table. It contains a cross-reference between Musical Pitches, Midi Codes, and the various Pokey/Gumby frequency codes. It also presents the error percentages for each Pokey code note generated.

**SUPFROG.ARC** contains the arcade games Star1000, Lost Pit, Mine 009, Bug Raid, GrassBat, IT N Run, and Speed Lap. Set options for these little maze games include Day or Night, Placed or No Maze, and any number of mines and trees to avoid. Play tag or run a race with frogs. Avoid hitting the sides of the maze, trees and mines. This sample version by Ed Sabojn comes from UltraBasic, Inc. The menu allows easy selection of the game and its options.

**FORCE4.ARC**, Force of Four by Kenneth Boynton, is A War Simulation with no instructions, being offered as Shareware. The joystick selects the weapons for the four men and moves them over the terrain. At the bottom of the screen are icons to select the direction to travel and weapon to use. Send \$20 to receive complete instructions and map. Kenneth Boynton, Rt 2 Box 199C, Bogalusa, LA 70427.

**BLUEBERRIES.ARC.** In Picking Blueberries, you try to out plant and out harvest your opponent in this two player maze game. Select the number of berries to gather to win.

**AML80.ARC** is an 80-column Auto Maintenance Data Base which works with the XEP80. Store 500 records keeping a log of dates, mileage, and cost of each maintenance performed on a particular car. It provides totals for all categories and computes warranty expiration dates. A.M.L.80 will work in Atari DOS and Sparta DOS single or double density, but will not work with Sparta DOS X. It will work with any 8 Bit computer with at least 48K of memory and an XEP80 interface module.

**ASMED.ARC.** Mat\*Rat presents an Assembly Editor Reference Manual for those you that picked up the assembly cart at a steal with no documentation. He presents a quick reference for all the commands of each section of the cartridge: the editor, the assembler and the debugger. He then guides you through the creation of your first program BUT doesn't pretend to teach you all there is to know to write an assembly language programs. He gives a quick comparison between BASIC and assembly language by illustrating major speed differences.

**ILBMRD14.ARC** and **ILBMRD20.ARC** by Jeffery Potter allows Atari users to view and save Amiga IFF/ILBM format pictures. This transformer saves pics in APAC mode which can then be viewed APACLOAD.OBJ or APACSHOW.OBJ. ILBMREAD.OBJ V2.0 has new features added and Potter replies to questions asked about using V1.4. He recommends keeping both versions handy. He asks users to show their support by sending a letter and a check to him to encourage the development of more Atari 8-bit software. Jeffrey D. Potter, 814 Banbury Dr., Port Orange, FL 32119. ●



# REVOLUTIONARY CALENDAR

Courtesy Artisan Software

## WEEK 10 March 4 through March 10, 1990 NATIONAL ATARI IN SCHOOLS WEEK

Continuing an effort to get Atari Computers in schools, write a letter to the largest school in your area and tell them that you would prefer that they use Atari computers for education. List 25 reasons why in your letter. Ask your family to send similar letters under separate cover. Invite the school to contact your local dealer for information. Include your dealer's phone number.

## WEEK 11 March 11 through March 17, 1990 NATIONAL ST. PATRICK'S BALLOON LAUNCH WEEK

In advance, locate a store in your area that sells helium filled balloons. Look for a green, non-metallic one. Users' groups may wish to obtain a tank or two from a local supplier. Listings are easily found in most phone books. Write a note stating: "SAVIN' O' THE GREEN. use Atari Computers" and sign it: "The REVOLUTION".

Tie the note to a string attached to the balloon you purchase in a timely fashion to be launched on Saturday, March 17 at Noon in your time zone.

You may singly launch the balloon from your back yard or organize a full blown event with your users' group. Please do not launch balloons in air traffic areas or in a manner which may cause harm to life or property. If launching in a group, contact your local police for advice as to best location to conduct the launch. This project may be subject to local laws. Please be advised that participation is at your own risk and Artisan Software assumes no responsibility for consequential damage caused to anyone by your act of releasing a balloon. A simple phone call to local authorities in advance will assure your safe participation in this project. Larger groups should contact the local newspapers in advance for coverage.

## WEEK 12 March 18 through March 24, 1990 NATIONAL "BACK TO BIG TIME PUBLICITY" WEEK

"The pen is mightier than the sword" and we're going to prove it again. Let's target David Horowitz this time. Write a letter to: David Horowitz, c/o NBC TV, 3000 Alameda, Burbank, CA 91523

Tell him that you are a member of "The REVOLUTION" and wish to have a show which demonstrates the value of Atari computers.

## WEEK 13 March 25 through March 31, 1990 NATIONAL BOOK STORE WEEK

Write letters to the following Booksellers: B. DALTON BOOKSELLER WALDENBOOKS, INC., 7505 metro Boulevard 201 High Ridge, Minneapolis, MN 55435 Stamford, CT 06904, and CROWN BOOKS, 3300 75th Avenue, Landover, MD 20785.

Tell them you are frustrated with the lack of Atari book support in their stores and you would like them to look at that issue earnestly. Tell them you are a member of "The REVOLUTION" and would like to see a special, highly visible assemblage of Atari books in the front of their stores.

## WEEK 14 April 1 through April 7 NATIONAL FOLLOW UP WEEK

Call, call the following networks: ABC (NY) (212) 887-7777, ABC (CA) (213) 557-7777, CBS (NY) (212) 975-4321, and NBC (CA) (818) 840-4444.

Ask to speak to the producer or a representative of the shows mentioned in previous weeks assignments. Ask them, if you do not know, if they have plans to follow up in response to the letter writing campaign. If they have done so already, congratulate them and tell them you hope to see more in the future. ●

Like a showroom-stock sports car, the Atari ST is a great performer. But sometimes, you need an extra edge, whether you're squeezing past that semi on the highway, or crunching numbers for that report the boss wanted yesterday. TURBO16 by Fast Technology gives you that extra edge. With a state-of-the-art 16MHz processor and high-speed RAM cache, the TURBO16 accelerator increases the ST's performance by as much as 70% in most real-world applications. Best of all, you can't get a ticket for running it on the street. When you feel the need for speed, turn to the high-performance accessory for the Atari ST...TURBO16 by Fast Technology.

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pc-ditto/pc-ditto II  
and other IBM PC  
emulators

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No local dealer? Contact Fast Technology for a list of authorized mail-order dealer/installation centers.

Dealer inquiries welcome.

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### BRAND NEW ITEMS

\$19995 The "BLACK BOX"! © \$19995

The **Black Box** is a device for your XL or 130XE computer that adds tremendous power to your 8-bit Atari. It has two buttons, two switches, and a set of dip switches visible from the outside. It plugs directly into the back of the 800XL, 800XL, and 130XE computers. Custom cases may be an optional expense. The **Black Box** performs three main tasks: interface to a SASI/SCSI bus device (hard disks), Parallel printer port, and a RS232 port. A fourth option, available soon, will be a floppy disk port, especially useful to XF551 owners. The SASI/SCSI port provides the necessary signals for hooking up most common hard disks. You may partition your hard disk into as many drives as you wish; up to 9 can be accessed at a time. By pressing one of the buttons on the **Black Box**, you will enter the configuration menu, where you can re-assign drive numbers, etc. When you exit, you will be right back in the program you were running when the switch was pressed. Each hard disk can be write-protected. The Parallel Printer port will allow you to hook up any printer that uses the standard Centronics interface. As an option, you can use the computer's extra memory as a printer buffer, or order the **Black Box** with 64K of on-board RAM. You may assign printer number and line-feed options within the menu (for use with multiple printers). Another amazing feature of the **Black Box** is the built-in screen dump. By pressing a button (on the box), the contents of your screen will be dumped to your printer (you can define text or graphics modes with a switch). The RS232 port supplies the full RS232C spec signals for connection to a modem, or another machine (for null-modem). The handler for the **Black Box** is a modern port built in and takes up NO memory! The port handles rates up to TRUE 19.2K BAUD! A future upgrade for the **Black Box** is a floppy disk interface board. This will allow the addition of up to four 5.25" or 3.5" mixtures of floppy drives to be used with the system. The drives will act like standard single/enhanced density disk drives, but MUCH faster! A drives will be Super Archiver compatible, and support up to 2 sides of 80 tracks. Along with this hardware upgrade will come software capable of reading, writing, and formatting disks in IBM's MS-DOS format and the Atari ST format, and allow you to transfer files between those disk formats and the Atari's format. In addition, a machine language monitor has been added to allow memory disassembly, memory/register changes, and more. The Price of the **Black Box** is \$199.95 for the basic unit and \$249.95 with 64K of RAM (for printer spooler) plus \$8 for S/H/I. An optional custom **BLACK BOX** case is available for \$39.95 extra.

\$19995 The "MULTIPLEXER"! © \$19995

This device brings the power and flexibility of larger systems to your 8-bit. The **Multiplexer** is a device (actually a collection of modules) that allow up to 8 Atari's to read and write to the same drive (typically a hard disk), printer, and talk to each other. One "master" computer (any 8-bit) is equipped with the master **Multiplexer** interface. Then up to 8 slave computers can hook up to the master, each having their own slave interface. The "common" peripherals (things that are to be shared) are connected to the master computer. On each slave disk and printer I/O is routed through the master, so no drives are needed on them. The master computer can be configured in any manner you wish - you can for example have certain peripherals "local" to the slave, or routed to a different number on the master. Under development is a BBS system that will make full use of this device, allowing up to 8 lines/users to be using the system at the same time. A multi-user chat mode is a feature of this program, however, you do not NEED this program to run a BBS with the **Multiplexer** (but be warned that not all BBS programs will run concurrently. All slaves are independent, and do not need to have the same program running on them. This system is excellent for BBS SysOps because you can be using your hard disk(s) while still running your BBS uninterrupted. Another example is in a classroom situation, or anywhere a disk needs to be shared by different people. This is an EXCELLENT programming/debugging tool as well. The **Multiplexer** price is \$199.95 for a master and two slave units (plus \$5 S/H/I). Additional slave units are \$69.95 each.

\$2995 "XF551 ENHANCER"! © \$2995

The XF551 Atari drive is a fine product with one major flaw - it writes to side TWO of your floppy disks BACKWARDS. This causes read/write incompatibility problems with all other single sided drives made for Atari such as Indus, Trak, Rana, Percom, Astra, Atari 1050, Atari 810, etc. Add the XF551 ENHANCER to the new XF551 drive and your problems are over! This device will restore 100% compatibility while retaining original design qualities of Atari's super new drive. The XF551 ENHANCER is a MUST for all XF551 Owners! Installation is simple. Only \$29.95 plus \$4 S/H/I.

\$9995 The "POWER PLUS"! © MEMORY UPGRADE \$9995  
(for 800XL S and 130XE's only)

C.S.S. has made the "Power Plus" memory upgrades available on an "unadvertised" basis to our regular patrons. These upgrades have become so popular we are now making them available to everyone! For those of you unfamiliar with "Power Plus" upgrade it is the most COMPATIBLE upgrade available for the 800XL or 130XE. All other upgrade kits have some degree of INCOMPATIBILITY with certain software programs. C.S.S. studied this problem and developed the **POWER PLUS** upgrade which, to the best of our knowledge, appears to be 100% compatible. To upgrade a 130XE to 320K is only \$99.95. To upgrade an 800XL to 320K is only \$149.95 (circuitry from a 130XE is actually transplanted into the 800XL). Add \$5 for S/H/I. C.S.S. will install these upgrades for only \$20 if you wish.

### NEW! OUR 24 HR. BBS! (716) 247-7157

For product information, WEEKLY SPECIALS, informative discussions on new products, theories, products you'd like to see developed, and used items for sale or trade, CALL (716) 247-7157 24 hrs. This BBS also features multi-user "CHAT" capabilities thanks to our new "MULTIPLEXER" which allows multiple user and BBS boards to be linked to several callers can share boards or talk to each other simultaneously! CALL (716) 247-7157 for BBS only. For VOICE orders or repairs, please call our normal Hot Line number (716) 586-5545.

### BEST SELLERS

\$6995 The "SUPER ARCHIVER"! © \$6995

The new **SUPER ARCHIVER**, obsoletes all copying devices currently available for the Atari 1050! It eliminates the need for Patches, PDB files, Computer Hardware, etc. Copies are exact duplicates of originals and will run on any drive; without exaggeration, the **SUPER ARCHIVER** is the most powerful PROGRAMMING/COPYING device available for the 1050! Installation consists of a plug-in chip and 6 simple solder connections. Software included. Features are:

- TRUE DOUBLE DENSITY
- ULTRA-SPEED read/write
- FULLY AUTOMATIC COPYING
- SUPPORTS EXTRA MEMORY
- SCREEN DUMP to printer
- TOGGLE HEX/DEC DISPLAY
- SECTOR or TRACK TRACING
- AUTOMATIC DIAGNOSTICS
- DISPLAYS HIDDEN PROTECTION
- ADJUSTABLE/CUSTOM SKEWING
- AUTOMATIC SPEED COMPENSATION
- AUTOMATIC PROGRAMMABLE
- PHANTOM SECTOR MAKER
- ARCHIVER/HAPPY ARCHIVER COMPATIBLE
- BUILT-IN EDITOR-reads/writes displays up to 35 sectors/track short
- BUILT-IN CUSTOM FORMATTER up to 40 sectors/track
- BUILT-IN DISASSEMBLER
- BUILT-IN MAPPER-up to 42 sectors/track
- DISPLAYS/COPIES Double Density HEADERS
- AUTOMATIC FORMAT LENGTH CORRECTION
- SIMPLE INSTALLATION

The **SUPER ARCHIVER** is so POWERFUL that only programs we know that can't be copied are the newer ELECTRONIC ARTS and SYNFINE/SYNALC (34 FULL sectors/track). If you want it ALL...buy the "BIT-WRITER" also...then you'll be able to copy even these programs! Only \$69.95 plus \$5 S/H/I.

### JUST RELEASED

\$9995 The "SUPER ARCHIVER II"! © \$9995  
(for Atari 1050 drives)

NOW! COPIES all ENHANCED DENSITY programs plus retains all of the features of our World Famous **SUPER ARCHIVER I** (see above). Allows you to COPY or CREATE single or ENHANCED density protection schemes (including PHANTOM SECTORS!). Completely automatic; compatible with the **BIT-WRITER I**, the ULTIMATE BACKUP/PROGRAMMING device! Only \$99.95 plus \$4 S/H/I. NOTICE! If you already own a **SUPER ARCHIVER I**, you can upgrade to a **SUPER ARCHIVER II** for only \$29.95 plus \$5 S/H/I (disk only-no additional hardware required).

\$6995 The "ULTRA SPEED PLUS"! © \$6995

Imagine a universal XLXE Operating System so easy to use that anyone can operate it instantly, yet so versatile and powerful that every Hacker, Programmer and Ramdisk owner will wonder how they ever got along without it! Ultra Speed Plus puts unbelievable speed and convenience at your fingertips. Use ANY DOS to place an ULTRA SPEED format on your disks, boot any drive (1-9) upon power-up, format your RAMDISK in Double Density, activate a built-in 400/800 OS for software compatibility, plus dozens of other features too numerous to mention! Below are just a FEW features you'll find in the amazing OS.

- ULTRA SPEED SIO for most modified drives
- ULTRA SPEED is toggleable
- Boot directly from RAMDISK
- Special timer circuits not required for 1 or 2 Meg upgrades
- Background colors adjustable
- Reverse use of OPTION key
- Cold start without memory loss
- Built-in floppy/disk configuration editor (1-9)
- Built-in RAMDISK configuration editor
- RAMDISK exactly duplicates floppy drive so sector copying and sector editing are now possible
- Built-in MINI Sector Copier
- Toggle SCREEN OFF for up to 40% increase of processing speed
- Toggle internal BASIC
- Ram resident disk loader program (MACH10 menu)
- DOUBLE DENSITY RAMDISK capable
- Entire MEMORY test; find preprints defective RAM chip
- Boot any drive (1-9) upon power-up or cold start
- Supports memory upgrades up to TWO MEGABYTES
- THREE Operating Systems in one: XLXE, 400/800, ULTRA SPEED PLUS

\$3995 The "RICHMANS"! © \$3995  
80 Column Word Processor

Easy to use, very powerful, and NO ADDITIONAL HARDWARE required! Works with TV or Monitor! This "DISK ONLY" 80 Column Word-Processor is simple to use while offering numerous features such as:

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- Merge compatible
- XEP-80 Compatible

One expert has compared 40 domestic and foreign word-processors and concluded that the **RICHMANS 80 Column Word-Processor** is the best! Only \$39.95 plus \$5 S/H/I. (64K required).

\$7995 The "BIT-WRITER"! ©

The Super Archiver "BIT-WRITER" is capable of duplicating even the "uncopyable" EA and SYN series which employ 34 FULL sectors/track. The "BIT-WRITER" is capable of reproducing these and FUTURE protection schemes of non-physically damaged disks. Simple installation... PLUG-IN circuit board and 4 simple solder connections. The "SUPER ARCHIVER" with the "BIT-WRITER" is the ultimate PROGRAMMING/COPYING device for Atari 1050's EXACT DUPLICATES of originals are made! Copies run on ANY drive. Must be used with Super Archiver. Only \$79.95 plus \$5 S/H/I.

\$3995 The "QUINTOPUS"! © \$3995

The "QUINTOPUS" is an inexpensive device that provides a tremendous amount of convenience while eliminating the problems associated with the endless "daisy-chaining" of peripherals (eg. drives, interfaces, printers, modems, cassettes, etc.). The "QUINTOPUS" is an I/O port expander that converts a single I/O output/input into five additional outputs/inputs. Instead of daisy-chaining all your peripherals (which often times results in passing a signal through 30 feet or more of cable!), the "QUINTOPUS" allows each device to be connected directly to the computers through only three or four feet of cable. This is particularly useful when attempting to use ULTRASPEED or WARPSPEED data transfer rates. The "QUINTOPUS" also provides the "extra" I/O ports often needed to connect devices not having daisy-chaining capabilities. Cable resistance and capacitance are greatly reduced thereby significantly improving the opportunity of accurate data transfers! Only \$39.95 plus \$5 S/H/I. SIO cable is \$5 extra if needed.

\$5995 The "QUINTOPUS"! © \$5995  
(with SWITCHABLE PORTS!)

This Deluxe version of the "QUINTOPUS" has all of the above features with the additional benefits of two SWITCHABLE PORTS! This means you can connect two computers to one printer or two printers to one computer, you can switch in a computer/printer combination and while you're printing out a long document, switch in a second computer to access a modem, disk drive, cassette deck, etc. Switch multiple combinations of peripherals or computers without the hassle of re-arranging I/O cables...simply flip a switch! Only \$59.95 plus \$5 S/H/I. SIO cable is \$5 extra if needed.

### HARD DRIVE SPECIALS

COMPLETE Hard Drive Systems from C.S.S. include the **BLACK BOX**, power supply, logic board, controller, DOS, cables and assorted software! All systems are wired, preformatted and have sample programs on them. Simply take it out of the box, plug it in and BOOT...no hassles! We currently stock 5 MEG to 80 MEG systems ranging from \$495 to \$895. Sizes range from 3 1/2 inch 5 1/4 inch to 8 inch industrial quality. Call!

Controllers available separately from Xebec, Adaptec, Seagate, Konan, and Western Digital. Call for pricing.

SPECIAL-SPECIAL! 5 MEG REMOVABLE disk Hard Drive — BRAND NEW — only \$495 complete! Hard Drive sold separately in limited quantities for only \$99.95. Excellent for backing up larger HD systems! (Original drive cost was \$1100!)

### LIMITED SPECIALS

These specials are available on a first come first served basis. Pre-owned items are in exceptionally clean condition and are in perfect operating order. All items are warranted. See us for rainchecks. Order 5 or more items and we'll pay the freight! These SPECIALS are for C.S.S. customers only. NO DEALER DISCOUNTS! Add \$5 to order for S/H/I!

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3. SUPER PILL (without case)	\$ 80	\$ 22
4. ULTRA MENU/DOS	\$ 30	\$ 19
5. DISKCRACKER (Newest version)	\$ 50	\$ 19
6. ELECTRONIC PHANTOM SECTOR MAKER DELUXE	\$ 60	\$ 35
7. IMPOSSIBLE for 800 or 800XL	\$ 150	\$ 69
8. KLONE II (Genetic Happy Backup)	\$ 100	\$ 75
9. SILENCER	\$ 30	\$ 19
10. BLACK PATCH (MASTER)	\$ 50	\$ 25

### REPAIRS

For 24-48 hour repair service on Atari computers or drives, call our repair department at (716) 586-5545 day or night. All work is guaranteed. NO minimum estimate fees; if you have two or more items for repair and don't want to spend any money, send them to us and we'll use the parts from both defective items to make one good working unit at NO CHARGE. We'll keep the other defective item for parts!





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